



## ANALYTICAL DATA REPORT

JMC Environmental Consultants  
2109 Bridge Avenue  
Building B  
Point Pleasant, NJ 08742

Project Name: ARSYNCO  
IAL Case Number: E13-10192

These data have been reviewed and accepted by:

A handwritten signature in black ink, appearing to read "Michael H. Lefrin".

Michael H. Lefrin, Ph.D.  
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (08-00773) and in the Department of Navy IR QA Program

# *Sample Summary*

*IAL Case No.*

**E13-10192**

*Client* JMC Environmental Consultants

*Project* ARSYNCO

*Received On* 10/14/2013@16:25

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Depth Top/Bottom</u>	<u>Sampling Time</u>	<u>Matrix</u>	<u># of Container</u>
10192-001	GG-42 (0-1.0)	0/1	10/14/2013@11:27	Soil	1
10192-002	GG-42 (1.0-2.0)	1/2	10/14/2013@11:28	Soil	1
10192-003	GG-42 (2.0-3.0)	2/3	10/14/2013@11:29	Soil	1
10192-004	HH-43 (0-1.0)	0/1	10/14/2013@11:37	Soil	1
10192-005	HH-43 (1.0-2.0)	1/2	10/14/2013@11:38	Soil	1
10192-006	GG-43 (0-1.0)	0/1	10/14/2013@12:29	Soil	1
10192-007	GG-43 (1.0-2.0)	1/2	10/14/2013@12:30	Soil	1
10192-008	GG-43 (2.0-3.0)	2/3	10/14/2013@12:31	Soil	1
10192-009	GG-44 (0-1.0)	0/1	10/14/2013@13:52	Soil	1
10192-010	GG-44 (1.0-2.0)	1/2	10/14/2013@13:53	Soil	1
10192-011	FB-21	n/a	10/14/2013@14:43	Aqueous	2

# INTEGRATED ANALYTICAL LABORATORIES, LLC.

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This report was finalized on October 28, 2013

\* Methodology is included in the IAL Project Information Page

# INTEGRATED ANALYTICAL LABORATORIES, LLC.

## DEFINITIONS / QUALIFIERS

### DATA QUALIFIERS

- B Indicates the analyte was found in the associated method blank as well as in the sample.  
It indicates probable laboratory contamination.
- C Indicates analyte is a common laboratory contaminant.
- D Indicated analyte was reported from diluted analysis.
- E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.
- J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

### REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

## **CONFORMANCE / NON-CONFORMANCE SUMMARIES**

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**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**CONFORMANCE / NONCONFORMANCE SUMMARY**

Integrated Analytical Laboratories, LLC. received one (1) aqueous and ten (10) soil sample(s) from JMC Environmental Consultants (IAL SDG # E13-10192, Project: ARSYNCO) on October 14, 2013 for the analysis of:

(11) TCL PCB

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Chidymonipu  
Reviewed by

10/28/13  
Date

# SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-10192

PCB By 8082A

<b>Batch ID:</b> 131021-17	<b>Matrix:</b> Aqueous
----------------------------	------------------------

- QC**
- Calibration Curve met QC criteria.
  - Surrogate Percent Recovery met QC criteria.
  - Method Blank met QC criteria.
  - LCS Percent Recovery met QC criteria.
  - MS/MSD Percent Recovery met QC criteria.
  - RPD between MS/MSD met QC criteria.
  - The following samples were cleaned up using method 3660B to remove sulfur: 011
  - The following samples were cleaned up using method 3665A: 011
- E13-10192**
- All samples were extracted within holding time.
  - All samples were analyzed within holding time.
  - Retention Time Shift met QC criteria.
  - No dilution was performed for sample 10192 -011.

Nicole Bon 10/23/2013  
Signature Date  
E13-10192 0004

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**SDG#: E13-10192**

PCB By 8082A

<b>Batch ID:</b> 131018-13	<b>Matrix:</b> Soil
----------------------------	---------------------

- QC**
- Calibration Curve met QC criteria.
  - Surrogate Percent Recovery met QC criteria.
  - Method Blank met QC criteria.
  - LCS Percent Recovery met QC criteria.
  - MS/MSD Percent Recovery met QC criteria.
  - RPD between MS/MSD met QC criteria.
  - The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010
- E13-10192**
- All samples were extracted within holding time.
  - All samples were analyzed within holding time.
  - Retention Time Shift met QC criteria.
  - No dilution was performed for samples 001-010.

## **RESULTS SUMMARY REPORT**

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

**Client: JMC Environmental Consultants**

**Project: ARSYNCO**

**Lab Case No.: E13-10192**

Lab ID:	10192-011											
Client ID:	FB-21											
Matrix:	Aqueous											
Sampled Date	10/14/13											
<b>PARAMETER(Units)</b>	Conc	Q	MDL									
PCB's (Units)	<i>(mg/L-ppm)</i>											
Aroclor-1016	ND	0.00002										
Aroclor-1221	ND	0.00002										
Aroclor-1232	ND	0.00002										
Aroclor-1242	ND	0.00002										
Aroclor-1248	ND	0.00002										
Aroclor-1254	ND	0.00002										
Aroclor-1260	ND	0.00002										
Aroclor-1262	ND	0.00002										
Aroclor-1268	ND	0.00002										
PCBs	ND	0.00002										
Lab ID:	10192-001	10192-002	10192-003	10192-004								
Client ID:	GG-42 (0-1.0)	GG-42 (1.0-2.0)	GG-42 (2.0-3.0)	HH-43 (0-1.0)								
Depth:	0/1	1/2	2/3	0/1								
Matrix:	Soil	Soil	Soil	Soil								
Sampled Date	10/14/13	10/14/13	10/14/13	10/14/13								
<b>PARAMETER(Units)</b>	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL			
PCB's (Units)	<i>(mg/Kg-ppm)</i>			<i>(mg/Kg-ppm)</i>			<i>(mg/Kg-ppm)</i>			<i>(mg/Kg-ppm)</i>		
Aroclor-1016	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1221	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1232	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1242	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1248	6.99	0.069	3.30	0.119	0.216	0.041	1.85	0.099				
Aroclor-1254	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1260	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1262	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
Aroclor-1268	ND	0.069	ND	0.119	ND	0.041	ND	0.099				
PCBs	6.99	0.069	3.30	0.119	0.216	0.041	1.85	0.099				
Lab ID:	10192-005	10192-006	10192-007	10192-008								
Client ID:	HH-43 (1.0-2.0)	GG-43 (0-1.0)	GG-43 (1.0-2.0)	GG-43 (2.0-3.0)								
Depth:	1/2	0/1	1/2	2/3								
Matrix:	Soil	Soil	Soil	Soil								
Sampled Date	10/14/13	10/14/13	10/14/13	10/14/13								
<b>PARAMETER(Units)</b>	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	<i>(mg/Kg-ppm)</i>			<i>(mg/Kg-ppm)</i>			<i>(mg/Kg-ppm)</i>			<i>(mg/Kg-ppm)</i>		
Aroclor-1016	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1221	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1232	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1242	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1248	0.588	0.118	1.42	0.129	ND	0.063	ND	0.022				
Aroclor-1254	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1260	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1262	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
Aroclor-1268	ND	0.118	ND	0.129	ND	0.063	ND	0.022				
PCBs	0.588	0.118	1.42	0.129	ND	0.063	ND	0.022				

ND = Analyzed for but Not Detected at the MDL

E13-10192 0007

**INTEGRATED ANALYTICAL LABORATORIES, LLC.****SUMMARY REPORT****Client: JMC Environmental Consultants****Project: ARSYNCO****Lab Case No.: E13-10192**

PARAMETER(Units)	Lab ID: 10192-009			Lab ID: 10192-010		
	Client ID:	GG-44 (0-1.0)		Client ID:	GG-44 (1.0-2.0)	
Depth:	0/1		Depth:	1/2		
Matrix:	Soil		Matrix:	Soil		
Sampled Date	10/14/13		Sampled Date	10/14/13		
	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	(mg/Kg-ppm)			(mg/Kg-ppm)		
Aroclor-1016	ND	0.089	ND	0.053		
Aroclor-1221	ND	0.089	ND	0.053		
Aroclor-1232	ND	0.089	ND	0.053		
Aroclor-1242	ND	0.089	ND	0.053		
Aroclor-1248	5.51	0.089	ND	0.053		
Aroclor-1254	ND	0.089	ND	0.053		
Aroclor-1260	ND	0.089	ND	0.053		
Aroclor-1262	ND	0.089	ND	0.053		
Aroclor-1268	ND	0.089	ND	0.053		
PCBs	5.51	0.089	ND	0.053		

ND = Analyzed for but Not Detected at the MDL

## **ANALYTICAL RESULTS**

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-001  
Client ID: GG-42\_(0  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4851.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.22g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 77.8

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.173	0.069
Aroclor-1221	ND		0.173	0.069
Aroclor-1232	ND		0.173	0.069
Aroclor-1242	ND		0.173	0.069
Aroclor-1248	6.99		0.173	0.069
Aroclor-1254	ND		0.173	0.069
Aroclor-1260	ND		0.173	0.069
Aroclor-1262	ND		0.173	0.069
Aroclor-1268	ND		0.173	0.069
PCBs	6.99		0.173	0.069

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-002  
Client ID: GG-42\_(1  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4852.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.18g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 87.0

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.297	0.119
Aroclor-1221	ND		0.297	0.119
Aroclor-1232	ND		0.297	0.119
Aroclor-1242	ND		0.297	0.119
Aroclor-1248	3.30		0.297	0.119
Aroclor-1254	ND		0.297	0.119
Aroclor-1260	ND		0.297	0.119
Aroclor-1262	ND		0.297	0.119
Aroclor-1268	ND		0.297	0.119
PCBs	3.30		0.297	0.119

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-003  
Client ID: GG-42\_(2  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4853.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.48g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 64.2

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.102	0.041
Aroclor-1221	ND		0.102	0.041
Aroclor-1232	ND		0.102	0.041
Aroclor-1242	ND		0.102	0.041
Aroclor-1248	0.216		0.102	0.041
Aroclor-1254	ND		0.102	0.041
Aroclor-1260	ND		0.102	0.041
Aroclor-1262	ND		0.102	0.041
Aroclor-1268	ND		0.102	0.041
PCBs	0.216		0.102	0.041

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-004  
Client ID: HH-43\_(0  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4854.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.15g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 84.3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.247	0.099
Aroclor-1221	ND		0.247	0.099
Aroclor-1232	ND		0.247	0.099
Aroclor-1242	ND		0.247	0.099
Aroclor-1248	1.85		0.247	0.099
Aroclor-1254	ND		0.247	0.099
Aroclor-1260	ND		0.247	0.099
Aroclor-1262	ND		0.247	0.099
Aroclor-1268	ND		0.247	0.099
PCBs	1.85		0.247	0.099

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-005  
Client ID: HH-43\_(1  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4855.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.35g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 87.3

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.294	0.118
Aroclor-1221	ND		0.294	0.118
Aroclor-1232	ND		0.294	0.118
Aroclor-1242	ND		0.294	0.118
Aroclor-1248	0.588		0.294	0.118
Aroclor-1254	ND		0.294	0.118
Aroclor-1260	ND		0.294	0.118
Aroclor-1262	ND		0.294	0.118
Aroclor-1268	ND		0.294	0.118
PCBs	0.588		0.294	0.118

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-006  
Client ID: GG-43\_(0  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4856.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.10g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 87.8

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.321	0.129
Aroclor-1221	ND		0.321	0.129
Aroclor-1232	ND		0.321	0.129
Aroclor-1242	ND		0.321	0.129
Aroclor-1248	1.42		0.321	0.129
Aroclor-1254	ND		0.321	0.129
Aroclor-1260	ND		0.321	0.129
Aroclor-1262	ND		0.321	0.129
Aroclor-1268	ND		0.321	0.129
PCBs	1.42		0.321	0.129

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-007  
Client ID: GG-43\_(1  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4857.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.64g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 77.3

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.156	0.063
Aroclor-1221	ND		0.156	0.063
Aroclor-1232	ND		0.156	0.063
Aroclor-1242	ND		0.156	0.063
Aroclor-1248	ND		0.156	0.063
Aroclor-1254	ND		0.156	0.063
Aroclor-1260	ND		0.156	0.063
Aroclor-1262	ND		0.156	0.063
Aroclor-1268	ND		0.156	0.063
PCBs	ND		0.156	0.063

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-008  
Client ID: GG-43\_(2  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4858.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.10g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 27.9

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.054	0.022
Aroclor-1221	ND		0.054	0.022
Aroclor-1232	ND		0.054	0.022
Aroclor-1242	ND		0.054	0.022
Aroclor-1248	ND		0.054	0.022
Aroclor-1254	ND		0.054	0.022
Aroclor-1260	ND		0.054	0.022
Aroclor-1262	ND		0.054	0.022
Aroclor-1268	ND		0.054	0.022
PCBs	ND		0.054	0.022

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-009  
Client ID: GG-44\_(0  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4859.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.70g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 84.3

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.223	0.089
Aroclor-1221	ND		0.223	0.089
Aroclor-1232	ND		0.223	0.089
Aroclor-1242	ND		0.223	0.089
Aroclor-1248	5.51		0.223	0.089
Aroclor-1254	ND		0.223	0.089
Aroclor-1260	ND		0.223	0.089
Aroclor-1262	ND		0.223	0.089
Aroclor-1268	ND		0.223	0.089
PCBs	5.51		0.223	0.089

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-010  
Client ID: GG-44\_(1  
Date Received: 10/14/2013  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4860.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.14g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 70.5

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.132	0.053
Aroclor-1221	ND		0.132	0.053
Aroclor-1232	ND		0.132	0.053
Aroclor-1242	ND		0.132	0.053
Aroclor-1248	ND		0.132	0.053
Aroclor-1254	ND		0.132	0.053
Aroclor-1260	ND		0.132	0.053
Aroclor-1262	ND		0.132	0.053
Aroclor-1268	ND		0.132	0.053
PCBs	ND		0.132	0.053

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10192-011

Client ID: FB-21

Date Received: 10/14/2013

Date Extracted: 10/21/2013

Date Analyzed: 10/22/2013

Data file: Y2412.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-mg/L (ppm)

Dilution Factor: 1

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.00005	0.00002
Aroclor-1221	ND		0.00005	0.00002
Aroclor-1232	ND		0.00005	0.00002
Aroclor-1242	ND		0.00005	0.00002
Aroclor-1248	ND		0.00005	0.00002
Aroclor-1254	ND		0.00005	0.00002
Aroclor-1260	ND		0.00005	0.00002
Aroclor-1262	ND		0.00005	0.00002
Aroclor-1268	ND		0.00005	0.00002
PCBs	ND		0.00005	0.00002

D --- Dilution Performed

B --- Compound detected in Blank

J --- Value Less than RL &amp; great than MDL

C --- Common laboratory contamination

E --- Exceeds upper level of Calibration curve

**PCB DATA**

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E13-10192 0021

## **PCB QC SUMMARY**

**PCB SURROGATE PERCENT RECOVERY SUMMARY**

Date Analyzed: 10/21/2013

Client ID	Sample ID	Matrix	TCMX 1		DCB 1		TCMX 2		DCB 2	
			% rec	#	% rec	#	% rec	#	% rec	#
PCB	BLKS131018-13	SOIL	101		115		96		116	
II-35N_(	E13-10150-015	SOIL	113		128		106		128	
B-5/3.5-	E13-10178-003	SOIL	92		110		87		113	
GG-42_(0	E13-10192-001	SOIL	130		126		120		127	
GG-42_(1	E13-10192-002	SOIL	141		145		134		139	
GG-42_(2	E13-10192-003	SOIL	131		133		123		138	
HH-43_(0	E13-10192-004	SOIL	142		141		132		135	
HH-43_(1	E13-10192-005	SOIL	145		146		136		127	
GG-43_(0	E13-10192-006	SOIL	146		138		136		133	
GG-43_(1	E13-10192-007	SOIL	145		149		136		135	
GG-43_(2	E13-10192-008	SOIL	123		123		115		110	
GG-44_(0	E13-10192-009	SOIL	141		137		132		135	
GG-44_(1	E13-10192-010	SOIL	132		139		126		133	
WC-1	E13-10351-001	SOIL	80		115		70		102	
IB-2A/1.	E13-10149-003	SOIL	104		120		96		103	
SW-201A	E13-10225-001	SOIL	96		113		85		106	
SW-201B	E13-10225-002	SOIL	104		124		94		107	
SW-202A	E13-10225-003	SOIL	95		118		84		111	
SW-202B	E13-10225-004	SOIL	103		123		91		114	
SW-203A	E13-10225-005	SOIL	105		107		95		98	
SW-203B	E13-10225-006	SOIL	130		140		115		123	
PCB	10225-006MS	SOIL	104		104		95		93	
PCB	10225-006MSD	SOIL	104		107		96		97	
PCB	LCSS131018-13	SOIL	109		112		100		102	

Surrogate QC Limits

Soil      Aqueous

TCMX = Tetrachloro-m-xylene

30-150      30-150

DCB = Decachlorobiphenyl

30-150      30-150

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

## PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/22/2013

Client ID	Sample ID	Matrix	TCMX 1		DCB 1		TCMX 2		DCB 2	
			% rec	#	% rec	#	% rec	#	% rec	#
PCB	BLKA131021-17	AQUEOUS	88		79		95		90	
PCB	LCSA131021-17	AQUEOUS	85		85		90		88	
OUTFALL	E13-10256-001	WASTE WATER	71		69		75		100	
FB-21	E13-10192-011	AQUEOUS	88		75		94		88	
FB-22	E13-10227-014	AQUEOUS	91		75		97		103	
PCB	E13-10256-001MS	WASTE WATER	78		85		84		103	
PCB	E13-10256-001MS	WASTE WATER	74		74		80		93	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene

Soil

Aqueous

30-150

30-150

DCB = Decachlorobiphenyl

30-150

30-150

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

**SOIL PCB LCS ACCURACY RECOVERY**

Matrix spike Lab sample ID: LCSS131018-13

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	588.2	118	40 - 140
Aroclor-1260	500.0	0.0	628.8	126	40 - 140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

Spike Recovery: 0 out of 2 outside limits

# AQUEOUS PCB LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSA131021-17

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	402.0	80	40 - 140
Aroclor-1260	500.0	0.0	430.1	86	40 - 140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

Spike Recovery: 0 out of 2 outside limits

**SOIL PCB MS/MSD ACCURACY RECOVERY**

Matrix spike Lab sample ID:

E13-10225-006

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	520.3	104	40 - 140
Aroclor-1260	500.0	0.0	559.3	112	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD #	% REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	561.0	112	7	50	40 - 140	
Aroclor-1260	0.0	611.4	122	9	50	40 - 140	

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

# AQUEOUS PCB MS/MSD ACCURACY RECOVERY

Matrix spike Lab sample ID:

E13-10256-001

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	412.4	82	40 - 140
Aroclor-1260	500.0	0.0	447.4	89	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD # REC	% RPD #	QC LIMITS RPD	REC.
Aroclor-1016	0.0	383.8	77	6	50	40 - 140
Aroclor-1260	0.0	426.8	85	5	50	40 - 140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

**PCB METHOD BLANK SUMMARY**

Lab File ID: R4848.D      Instrument ID: GC-R

Date Extracted: 10/18/2013      Matrix: SOIL

Date Analyzed: 10/21/2013      Time Analyzed: 10:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

<b>Client ID</b>	<b>Lab Sample ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
II-35N_(	E13-10150-015	10/21/2013	10:28
B-5/3.5-	E13-10178-003	10/21/2013	10:46
GG-42_(0	E13-10192-001	10/21/2013	11:03
GG-42_(1	E13-10192-002	10/21/2013	11:20
GG-42_(2	E13-10192-003	10/21/2013	11:38
HH-43_(0	E13-10192-004	10/21/2013	11:55
HH-43_(1	E13-10192-005	10/21/2013	12:13
GG-43_(0	E13-10192-006	10/21/2013	12:30
GG-43_(1	E13-10192-007	10/21/2013	12:48
GG-43_(2	E13-10192-008	10/21/2013	13:05
GG-44_(0	E13-10192-009	10/21/2013	13:23
GG-44_(1	E13-10192-010	10/21/2013	13:40
WC-1	E13-10351-001	10/21/2013	14:15
IB-2A/1.	E13-10149-003	10/21/2013	14:32
SW-201A	E13-10225-001	10/21/2013	14:50
SW-201B	E13-10225-002	10/21/2013	15:07
SW-202A	E13-10225-003	10/21/2013	15:25
SW-202B	E13-10225-004	10/21/2013	15:42
SW-203A	E13-10225-005	10/21/2013	16:00
SW-203B	E13-10225-006	10/21/2013	16:17
PCB	10225-006MS	10/21/2013	17:11
PCB	10225-006MSD	10/21/2013	17:28
PCB	LCSS131018-13	10/21/2013	17:46

**PCB METHOD BLANK SUMMARY**

Lab File ID: Y2409.D

Instrument ID: GC-Y

Date Extracted: 10/21/2013

Matrix: AQUEOUS

Date Analyzed: 10/22/2013

Time Analyzed: 21:25

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

<b>Client ID</b>	<b>Lab Sample ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
PCB	LCSA131021-17	10/22/2013	21:43
OUTFALL	E13-10256-001	10/22/2013	22:00
FB-21	E13-10192-011	10/22/2013	22:17
FB-22	E13-10227-014	10/22/2013	22:35
PCB	E13-10256-001MS	10/22/2013	22:52
PCB	E13-10256-001MSD	10/22/2013	23:09

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.20	3.20	3.20	3.20	3.20	3.20	3.13	3.27
Aroclor-1016 {2}	4.03	4.03	4.03	4.03	4.03	4.03	3.96	4.10
Aroclor-1016 {3}	4.59	4.58	4.58	4.58	4.58	4.58	4.51	4.65
Aroclor-1016 {4}	5.09	5.09	5.09	5.09	5.09	5.09	5.02	5.16
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.11				2.04	2.18
Aroclor-1221 {2}			3.00				2.93	3.07
Aroclor-1221 {3}			3.13				3.06	3.20
Aroclor-1221 {4}			3.20				3.13	3.27
Aroclor-1221 {5}			3.80				3.73	3.87
Aroclor-1232			3.20				3.13	3.27
Aroclor-1232 {2}			4.03				3.96	4.10
Aroclor-1232 {3}			4.70				4.63	4.77
Aroclor-1232 {4}			5.29				5.22	5.36
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.03				3.96	4.10
Aroclor-1242 {2}			4.97				4.90	5.04
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			6.00				5.93	6.07
Aroclor-1242 {5}			6.27				6.20	6.34
Aroclor-1248			4.43				4.35	4.51
Aroclor-1248 {2}			4.97				4.89	5.05
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			6.00				5.92	6.08
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.83				6.75	6.91
Aroclor-1254 {3}			7.00				6.91	7.09
Aroclor-1254 {4}			7.45				7.36	7.54
Aroclor-1254 {5}			8.30				8.21	8.39
Aroclor-1260	8.30	8.30	8.29	8.29	8.29	8.29	7.39	9.19
Aroclor-1260 {2}	8.97	8.97	8.97	8.97	8.96	8.97	8.07	9.87
Aroclor-1260 {3}	9.46	9.46	9.45	9.45	9.45	9.45	8.55	10.35
Aroclor-1260 {4}	9.95	9.95	9.94	9.94	9.94	9.94	9.04	10.84
Aroclor-1260 {5}	11.02	11.01	11.01	11.01	11.00	11.01	10.11	11.91

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	231867	242237	228592	193642	202501	219768	9.41
Aroclor-1016 {2}	323952	328763	312155	266416	283182	302894	8.92
Aroclor-1016 {3}	408864	422707	403550	343925	364951	388800	8.48
Aroclor-1016 {4}	211380	209414	197757	165186	173203	191388	11.03
Aroclor-1016 {5}	318536	325749	322343	275171	293750	307110	7.11
Aroclor-1221			112607				
Aroclor-1221 {2}			180363				
Aroclor-1221 {3}			116612				
Aroclor-1221 {4}			410785				
Aroclor-1221 {5}			87454				
Aroclor-1232			299005				
Aroclor-1232 {2}			173615				
Aroclor-1232 {3}			148470				
Aroclor-1232 {4}			166967				
Aroclor-1232 {5}			214764				
Aroclor-1242			270307				
Aroclor-1242 {2}			167968				
Aroclor-1242 {3}			238157				
Aroclor-1242 {4}			373164				
Aroclor-1242 {5}			318472				
Aroclor-1248			652071				
Aroclor-1248 {2}			375416				
Aroclor-1248 {3}			492167				
Aroclor-1248 {4}			820080				
Aroclor-1248 {5}			559162				
Aroclor-1254			754913				
Aroclor-1254 {2}			471653				
Aroclor-1254 {3}			896264				
Aroclor-1254 {4}			908483				
Aroclor-1254 {5}			831676				
Aroclor-1260	775960	857104	906294	793572	814009	829388	6.34
Aroclor-1260 {2}	377553	403178	424628	369076	376790	390245	5.93
Aroclor-1260 {3}	928859	1035434	1093936	957941	955048	994243	6.89
Aroclor-1260 {4}	468061	491573	539142	480892	479108	491755	5.65
Aroclor-1260 {5}	276730	239351	257112	224560	216162	242783	10.11
Average %RSD							7.99

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.37	3.37	3.37	3.37	3.37	3.37	3.30	3.44
Aroclor-1016 {2}	3.93	3.93	3.93	3.93	3.93	3.93	3.86	4.00
Aroclor-1016 {3}	4.65	4.65	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	4.85	4.85	4.85	4.85	4.85	4.85	4.78	4.92
Aroclor-1016 {5}	5.01	5.01	5.02	5.02	5.02	5.02	4.95	5.09
Aroclor-1221			2.16				2.09	2.23
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.28				3.21	3.35
Aroclor-1221 {4}			3.37				3.30	3.44
Aroclor-1221 {5}			4.65				4.58	4.72
Aroclor-1232			3.37				3.30	3.44
Aroclor-1232 {2}			4.29				4.22	4.36
Aroclor-1232 {3}			4.85				4.78	4.92
Aroclor-1232 {4}			5.02				4.95	5.09
Aroclor-1232 {5}			5.60				5.53	5.67
Aroclor-1242			4.29				4.22	4.36
Aroclor-1242 {2}			5.02				4.95	5.09
Aroclor-1242 {3}			5.60				5.53	5.67
Aroclor-1242 {4}			5.75				5.68	5.82
Aroclor-1242 {5}			6.29				6.22	6.36
Aroclor-1248			4.65				4.57	4.73
Aroclor-1248 {2}			5.21				5.13	5.29
Aroclor-1248 {3}			5.60				5.52	5.68
Aroclor-1248 {4}			5.75				5.67	5.83
Aroclor-1248 {5}			6.09				6.01	6.17
Aroclor-1254			6.58				6.50	6.66
Aroclor-1254 {2}			7.16				7.08	7.24
Aroclor-1254 {3}			7.59				7.50	7.68
Aroclor-1254 {4}			7.78				7.69	7.87
Aroclor-1254 {5}			8.58				8.49	8.67
Aroclor-1260	7.34	7.34	7.34	7.34	7.34	7.34	6.44	8.24
Aroclor-1260 {2}	7.59	7.59	7.59	7.59	7.59	7.59	6.69	8.49
Aroclor-1260 {3}	9.17	9.17	9.17	9.17	9.17	9.17	8.27	10.07
Aroclor-1260 {4}	9.69	9.69	9.69	9.68	9.68	9.69	8.79	10.59
Aroclor-1260 {5}	10.28	10.28	10.27	10.27	10.27	10.27	9.37	11.17

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed:	<u>10/18/2013</u>					Instrument ID:	<u>GC-R</u>
						GC Column (2nd):	<u>DB-1701P</u>
Data File:	<u>R4820.C</u>	<u>R4819.C</u>	<u>R4818.C</u>	<u>R4817.C</u>	<u>R4816.C</u>		
<b>CALIBRATION FACTORS</b>							
Compound	10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	550494	519905	477104	398620	415593	472343	13.82
Aroclor-1016 {2}	1137773	1114790	971547	817071	857941	979824	14.84
Aroclor-1016 {3}	2409237	2308318	2162673	1836901	1930647	2129555	11.42
Aroclor-1016 {4}	976378	938082	902861	752678	797813	873562	10.85
Aroclor-1016 {5}	765897	723148	693529	580374	604962	673582	11.68
Aroclor-1221			232590				
Aroclor-1221 {2}			371702				
Aroclor-1221 {3}			228573				
Aroclor-1221 {4}			851260				
Aroclor-1221 {5}			156189				
Aroclor-1232			626422				
Aroclor-1232 {2}			237558				
Aroclor-1232 {3}			506906				
Aroclor-1232 {4}			387345				
Aroclor-1232 {5}			545113				
Aroclor-1242			361591				
Aroclor-1242 {2}			595144				
Aroclor-1242 {3}			790982				
Aroclor-1242 {4}			656779				
Aroclor-1242 {5}			1253965				
Aroclor-1248			1407656				
Aroclor-1248 {2}			2125325				
Aroclor-1248 {3}			1515589				
Aroclor-1248 {4}			1365446				
Aroclor-1248 {5}			734322				
Aroclor-1254			1659417				
Aroclor-1254 {2}			1314077				
Aroclor-1254 {3}			861013				
Aroclor-1254 {4}			1218067				
Aroclor-1254 {5}			1822415				
Aroclor-1260	922431	1045578	934621	786115	713116	880372	14.90
Aroclor-1260 {2}	1394880	1337506	1235464	1030567	1057679	1211219	13.47
Aroclor-1260 {3}	1134860	1095803	1056150	902187	916628	1021126	10.36
Aroclor-1260 {4}	2472691	2519783	2419894	2060860	2010835	2296813	10.51
Aroclor-1260 {5}	1675873	1830814	1743697	1489536	1439740	1635932	10.19
Average %RSD							12.21

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013

Instrument ID: GC-R  
GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			8.66				8.54	8.78
Aroclor-1262 {2}			9.45				9.33	9.57
Aroclor-1262 {3}			10.08				9.96	10.20
Aroclor-1262 {4}			10.17				10.05	10.29
Aroclor-1262 {5}			11.01				10.89	11.13
Aroclor-1268			10.08				9.96	10.20
Aroclor-1268 {2}			10.17				10.05	10.29
Aroclor-1268 {3}			10.63				10.51	10.75
Aroclor-1268 {4}			10.76				10.64	10.88
Aroclor-1268 {5}			11.61				11.49	11.73

GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			9.17				9.05	9.29
Aroclor-1262 {2}			9.68				9.56	9.80
Aroclor-1262 {3}			10.17				10.05	10.29
Aroclor-1262 {4}			10.26				10.14	10.38
Aroclor-1262 {5}			10.86				10.74	10.98
Aroclor-1268			10.17				10.05	10.29
Aroclor-1268 {2}			10.25				10.13	10.37
Aroclor-1268 {3}			10.50				10.38	10.62
Aroclor-1268 {4}			10.64				10.52	10.76
Aroclor-1268 {5}			11.72				11.60	11.84

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
     GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			420599				
Aroclor-1262 {2}			1542205				
Aroclor-1262 {3}			582031				
Aroclor-1262 {4}			721905				
Aroclor-1262 {5}			531740				
Aroclor-1268			1681176				
Aroclor-1268 {2}			1910902				
Aroclor-1268 {3}			1476250				
Aroclor-1268 {4}			401069				
Aroclor-1268 {5}			4856406				

GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			1508129				
Aroclor-1262 {2}			3468452				
Aroclor-1262 {3}			1097700				
Aroclor-1262 {4}			2448536				
Aroclor-1262 {5}			430436				
Aroclor-1268			3602626				
Aroclor-1268 {2}			4026803				
Aroclor-1268 {3}			3133762				
Aroclor-1268 {4}			846659				
Aroclor-1268 {5}			9930684				

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/21/2013

Instrument ID: GC-R

Data File: R4847.D

GC Column (1st): DB-5

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.20	3.13	3.27	219768	206443	6.06
Aroclor-1016 {2}	4.03	3.96	4.10	302894	282652	6.68
Aroclor-1016 {3}	4.59	4.51	4.65	388800	365996	5.87
Aroclor-1016 {4}	5.09	5.02	5.16	191388	184607	3.54
Aroclor-1016 {5}	5.49	5.42	5.56	307110	294509	4.10
Aroclor-1260	8.29	7.39	9.19	829388	870487	4.96
Aroclor-1260 {2}	8.97	8.07	9.87	390245	407438	4.41
Aroclor-1260 {3}	9.45	8.55	10.35	994243	1079870	8.61
Aroclor-1260 {4}	9.94	9.04	10.84	491755	540151	9.84
Aroclor-1260 {5}	11.01	10.11	11.91	242783	259912	7.06

Data File: R4847.C

GC Column (2nd): DB-1701P

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	410113	13.17
Aroclor-1016 {2}	3.93	3.86	4.00	979824	828277	15.47
Aroclor-1016 {3}	4.65	4.58	4.72	2129555	1833057	13.92
Aroclor-1016 {4}	4.85	4.78	4.92	873562	777522	10.99
Aroclor-1016 {5}	5.02	4.95	5.09	673582	596840	11.39
Aroclor-1260	7.34	6.44	8.24	880372	822388	6.59
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1097368	9.40
Aroclor-1260 {3}	9.17	8.27	10.07	1021126	952920	6.68
Aroclor-1260 {4}	9.68	8.79	10.59	2296813	2230665	2.88
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1631415	0.28

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/21/2013

Instrument ID: GC-R

Data File: R4861.D

GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.20	3.13	3.27	219768	217971	0.82
Aroclor-1016 {2}	4.03	3.96	4.10	302894	296545	2.10
Aroclor-1016 {3}	4.59	4.51	4.65	388800	386567	0.57
Aroclor-1016 {4}	5.09	5.02	5.16	191388	191035	0.18
Aroclor-1016 {5}	5.49	5.42	5.56	307110	308658	0.50
Aroclor-1260	8.30	7.39	9.19	829388	897621	8.23
Aroclor-1260 {2}	8.97	8.07	9.87	390245	413956	6.08
Aroclor-1260 {3}	9.45	8.55	10.35	994243	1040773	4.68
Aroclor-1260 {4}	9.94	9.04	10.84	491755	544761	10.78
Aroclor-1260 {5}	11.00	10.11	11.91	242783	244813	0.84

Data File: R4861.C

GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	420027	11.08
Aroclor-1016 {2}	3.93	3.86	4.00	979824	853001	12.94
Aroclor-1016 {3}	4.65	4.58	4.72	2129555	1892327	11.14
Aroclor-1016 {4}	4.85	4.78	4.92	873562	786547	9.96
Aroclor-1016 {5}	5.02	4.95	5.09	673582	604600	10.24
Aroclor-1260	7.34	6.44	8.24	880372	810861	7.90
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1101070	9.09
Aroclor-1260 {3}	9.17	8.27	10.07	1021126	974978	4.52
Aroclor-1260 {4}	9.68	8.79	10.59	2296813	2235956	2.65
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1545139	5.55

# AROCLOL CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/21/2013

Instrument ID: GC-R

Data File: R4873.D

GC Column (1st): DB-5

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.20	3.13	3.27	219768	225002	2.38
Aroclor-1016 {2}	4.04	3.96	4.10	302894	306213	1.10
Aroclor-1016 {3}	4.59	4.51	4.65	388800	401034	3.15
Aroclor-1016 {4}	5.09	5.02	5.16	191388	206106	7.69
Aroclor-1016 {5}	5.49	5.42	5.56	307110	320727	4.43
Aroclor-1260	8.30	7.39	9.19	829388	956846	15.37
Aroclor-1260 {2}	8.97	8.07	9.87	390245	441565	13.15
Aroclor-1260 {3}	9.46	8.55	10.35	994243	1180910	18.77
Aroclor-1260 {4}	9.95	9.04	10.84	491755	589337	19.84
Aroclor-1260 {5}	11.01	10.11	11.91	242783	279127	14.97

Data File: R4873.C

GC Column (2nd): DB-1701P

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	441352	6.56
Aroclor-1016 {2}	3.93	3.86	4.00	979824	880588	10.13
Aroclor-1016 {3}	4.65	4.58	4.72	2129555	1970441	7.47
Aroclor-1016 {4}	4.85	4.78	4.92	873562	827324	5.29
Aroclor-1016 {5}	5.02	4.95	5.09	673582	632661	6.08
Aroclor-1260	7.34	6.44	8.24	880372	867912	1.42
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1159722	4.25
Aroclor-1260 {3}	9.17	8.27	10.07	1021126	1010042	1.09
Aroclor-1260 {4}	9.68	8.79	10.59	2296813	2365304	2.98
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1710173	4.54

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013      Instrument ID: GC-Y  
 GC Column (1st): DB-5

Data File: Y1850.D Y1849.D Y1848.D Y1847.D Y1846.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.23	3.23	3.23	3.23	3.23	3.23	3.16	3.30
Aroclor-1016 {2}	4.05	4.05	4.05	4.05	4.05	4.05	3.98	4.12
Aroclor-1016 {3}	4.60	4.60	4.60	4.60	4.60	4.60	4.53	4.67
Aroclor-1016 {4}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.14				2.07	2.21
Aroclor-1221 {2}			3.02				2.95	3.09
Aroclor-1221 {3}			3.15				3.08	3.22
Aroclor-1221 {4}			3.22				3.15	3.29
Aroclor-1221 {5}			3.81				3.74	3.88
Aroclor-1232			3.23				3.16	3.30
Aroclor-1232 {2}			4.05				3.98	4.12
Aroclor-1232 {3}			4.71				4.64	4.78
Aroclor-1232 {4}			5.30				5.23	5.37
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.05				3.98	4.12
Aroclor-1242 {2}			4.98				4.91	5.05
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			5.99				5.92	6.06
Aroclor-1242 {5}			6.26				6.19	6.33
Aroclor-1248			4.45				4.37	4.53
Aroclor-1248 {2}			4.98				4.90	5.06
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			5.99				5.91	6.07
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.82				6.74	6.90
Aroclor-1254 {3}			6.99				6.90	7.08
Aroclor-1254 {4}			7.42				7.33	7.51
Aroclor-1254 {5}			8.26				8.17	8.35
Aroclor-1260	8.26	8.26	8.26	8.26	8.26	8.26	7.36	9.16
Aroclor-1260 {2}	8.94	8.94	8.94	8.94	8.93	8.94	8.04	9.84
Aroclor-1260 {3}	9.41	9.41	9.41	9.41	9.41	9.41	8.51	10.31
Aroclor-1260 {4}	9.89	9.89	9.89	9.89	9.89	9.89	8.99	10.79
Aroclor-1260 {5}	10.95	10.95	10.95	10.95	10.95	10.95	10.05	11.85

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013

Instrument ID: GC-Y  
GC Column (1st): DB-5

Data File: Y1850.D    Y1849.D    Y1848.D    Y1847.D    Y1846.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	464323	441679	382895	349177	333589	394332	14.46
Aroclor-1016 {2}	631313	643566	521731	477189	458454	546451	15.79
Aroclor-1016 {3}	806143	774449	662509	606621	589177	687780	14.26
Aroclor-1016 {4}	363540	363516	332688	305606	289774	331025	10.09
Aroclor-1016 {5}	628860	642038	551930	503774	487757	562872	12.52
Aroclor-1221			199877				
Aroclor-1221 {2}			313557				
Aroclor-1221 {3}			198732				
Aroclor-1221 {4}			681302				
Aroclor-1221 {5}			164392				
Aroclor-1232			508390				
Aroclor-1232 {2}			304333				
Aroclor-1232 {3}			272852				
Aroclor-1232 {4}			292921				
Aroclor-1232 {5}			379208				
Aroclor-1242			445331				
Aroclor-1242 {2}			289404				
Aroclor-1242 {3}			394283				
Aroclor-1242 {4}			595594				
Aroclor-1242 {5}			525307				
Aroclor-1248			1072563				
Aroclor-1248 {2}			618287				
Aroclor-1248 {3}			795414				
Aroclor-1248 {4}			1263310				
Aroclor-1248 {5}			998553				
Aroclor-1254			1250957				
Aroclor-1254 {2}			821044				
Aroclor-1254 {3}			1480779				
Aroclor-1254 {4}			1606933				
Aroclor-1254 {5}			1429697				
Aroclor-1260	1799563	1887490	1561779	1407648	1377152	1606726	14.27
Aroclor-1260 {2}	884011	896189	732678	641350	641368	759119	16.51
Aroclor-1260 {3}	2064481	2110924	1815054	1604501	1536563	1826305	14.25
Aroclor-1260 {4}	982911	1147466	964107	838195	828743	952284	13.64
Aroclor-1260 {5}	415694	477377	462681	369882	339327	412992	14.28
Average %RSD							14.01

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013      Instrument ID: GC-Y  
 GC Column (2nd): DB-1701P

Data File: Y1850.C Y1849.C Y1848.C Y1847.C Y1846.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.76	3.76	3.76	3.76	3.76	3.76	3.69	3.83
Aroclor-1016 {2}	4.36	4.36	4.36	4.36	4.36	4.36	4.29	4.43
Aroclor-1016 {3}	5.11	5.11	5.11	5.11	5.11	5.11	5.04	5.18
Aroclor-1016 {4}	5.32	5.32	5.32	5.32	5.32	5.32	5.25	5.39
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.44				2.37	2.51
Aroclor-1221 {2}			3.44				3.37	3.51
Aroclor-1221 {3}			3.67				3.60	3.74
Aroclor-1221 {4}			3.77				3.70	3.84
Aroclor-1221 {5}			5.11				5.04	5.18
Aroclor-1232			3.76				3.69	3.83
Aroclor-1232 {2}			4.74				4.67	4.81
Aroclor-1232 {3}			5.32				5.25	5.39
Aroclor-1232 {4}			5.49				5.42	5.56
Aroclor-1232 {5}			6.09				6.02	6.16
Aroclor-1242			4.74				4.67	4.81
Aroclor-1242 {2}			5.49				5.42	5.56
Aroclor-1242 {3}			6.09				6.02	6.16
Aroclor-1242 {4}			6.24				6.17	6.31
Aroclor-1242 {5}			6.79				6.72	6.86
Aroclor-1248			5.11				5.03	5.19
Aroclor-1248 {2}			5.69				5.61	5.77
Aroclor-1248 {3}			6.09				6.01	6.17
Aroclor-1248 {4}			6.24				6.16	6.32
Aroclor-1248 {5}			6.59				6.51	6.67
Aroclor-1254			7.09				7.01	7.17
Aroclor-1254 {2}			7.67				7.59	7.75
Aroclor-1254 {3}			8.29				8.20	8.38
Aroclor-1254 {4}			8.51				8.42	8.60
Aroclor-1254 {5}			9.10				9.01	9.19
Aroclor-1260	7.85	7.85	7.85	7.85	7.85	7.85	6.95	8.75
Aroclor-1260 {2}	8.11	8.11	8.11	8.11	8.11	8.11	7.21	9.01
Aroclor-1260 {3}	9.70	9.70	9.70	9.70	9.70	9.70	8.80	10.60
Aroclor-1260 {4}	10.20	10.20	10.20	10.20	10.20	10.20	9.30	11.10
Aroclor-1260 {5}	10.79	10.79	10.79	10.79	10.79	10.79	9.89	11.69

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013

Instrument ID: GC-Y  
GC Column (2nd): DB-1701P

Data File: Y1850.C   Y1849.C   Y1848.C   Y1847.C   Y1846.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	840261	856585	714298	646843	597927	731183	15.71
Aroclor-1016 {2}	1833596	1816776	1547682	1378645	1353928	1586125	14.54
Aroclor-1016 {3}	4371716	4236799	3569561	3258945	3150851	3717574	15.04
Aroclor-1016 {4}	1871668	1849704	1597815	1454198	1410182	1636714	13.20
Aroclor-1016 {5}	1442767	1421476	1238979	1138128	1115123	1271295	12.13
Aroclor-1221			340703				
Aroclor-1221 {2}			617655				
Aroclor-1221 {3}			417322				
Aroclor-1221 {4}			1522237				
Aroclor-1221 {5}			291032				
Aroclor-1232			973678				
Aroclor-1232 {2}			425526				
Aroclor-1232 {3}			940006				
Aroclor-1232 {4}			735287				
Aroclor-1232 {5}			1002709				
Aroclor-1242			611221				
Aroclor-1242 {2}			1032956				
Aroclor-1242 {3}			1271440				
Aroclor-1242 {4}			1106793				
Aroclor-1242 {5}			2184386				
Aroclor-1248			2396754				
Aroclor-1248 {2}			3539345				
Aroclor-1248 {3}			2550731				
Aroclor-1248 {4}			2230079				
Aroclor-1248 {5}			1294923				
Aroclor-1254			2883717				
Aroclor-1254 {2}			2180898				
Aroclor-1254 {3}			1865030				
Aroclor-1254 {4}			1138169				
Aroclor-1254 {5}			2980480				
Aroclor-1260	1380266	1597791	1348190	1285120	1250722	1372418	9.90
Aroclor-1260 {2}	2170235	2320146	1904498	1826388	1764884	1997230	11.90
Aroclor-1260 {3}	1830758	1876902	1742155	1590179	1579596	1723918	7.88
Aroclor-1260 {4}	3775292	4234437	3909868	3531301	3570473	3804274	7.51
Aroclor-1260 {5}	2569926	3071676	2828424	2567649	2559367	2719408	8.36
<b>Average %RSD</b>						11.62	

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013

Instrument ID: GC-Y  
GC Column (1st): DB-5

Data File: Y1850.D Y1849.D Y1848.D Y1847.D Y1846.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			8.55				8.43	8.67
Aroclor-1262 {2}			9.41				9.29	9.53
Aroclor-1262 {3}			10.04				9.92	10.16
Aroclor-1262 {4}			10.13				10.01	10.25
Aroclor-1262 {5}			10.95				10.83	11.07
Aroclor-1268			10.04				9.92	10.16
Aroclor-1268 {2}			10.12				10.00	10.24
Aroclor-1268 {3}			10.59				10.47	10.71
Aroclor-1268 {4}			11.55				11.43	11.67
Aroclor-1268 {5}			12.04				11.92	12.16

GC Column (2nd): DB-1701P

Data File: Y1850.C Y1849.C Y1848.C Y1847.C Y1846.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			9.70				9.58	9.82
Aroclor-1262 {2}			10.20				10.08	10.32
Aroclor-1262 {3}			10.70				10.58	10.82
Aroclor-1262 {4}			10.79				10.67	10.91
Aroclor-1262 {5}			11.39				11.27	11.51
Aroclor-1268			10.70				10.58	10.82
Aroclor-1268 {2}			10.78				10.66	10.90
Aroclor-1268 {3}			11.04				10.92	11.16
Aroclor-1268 {4}			12.25				12.13	12.37
Aroclor-1268 {5}			12.48				12.36	12.60

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013      Instrument ID: GC-Y  
 GC Column (1st): DB-5

Data File: Y1850.D Y1849.D Y1848.D Y1847.D Y1846.D

Compound	CALIBRATION FACTORS						MEAN	%RSD
	10	50	500	1000	2000			
Aroclor-1262			1292916					
Aroclor-1262 {2}			2408782					
Aroclor-1262 {3}			950819					
Aroclor-1262 {4}			1039798					
Aroclor-1262 {5}			871465					
Aroclor-1268			2329028					
Aroclor-1268 {2}			2439244					
Aroclor-1268 {3}			1975765					
Aroclor-1268 {4}			5596247					
Aroclor-1268 {5}			3165388					

GC Column (2nd): DB-1701P

Data File: Y1850.C Y1849.C Y1848.C Y1847.C Y1846.C

Compound	CALIBRATION FACTORS						MEAN	%RSD
	10	50	500	1000	2000			
Aroclor-1262			2532606					
Aroclor-1262 {2}			5716193					
Aroclor-1262 {3}			2058727					
Aroclor-1262 {4}			4020600					
Aroclor-1262 {5}			980018					
Aroclor-1268			5861773					
Aroclor-1268 {2}			6124826					
Aroclor-1268 {3}			5049165					
Aroclor-1268 {4}			14509441					
Aroclor-1268 {5}			8286384					

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/22/2013

Instrument ID: GC-Y

Data File: Y2408.D

GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.23	3.16	3.30	394332	326823	17.12
Aroclor-1016 {2}	4.05	3.98	4.12	546451	447291	18.15
Aroclor-1016 {3}	4.60	4.53	4.67	687780	560616	18.49
Aroclor-1016 {4}	5.10	5.03	5.17	331025	292250	11.71
Aroclor-1016 {5}	5.50	5.42	5.56	562872	463278	17.69
Aroclor-1260	8.27	7.36	9.16	1606726	1321724	17.74
Aroclor-1260 {2}	8.94	8.04	9.84	759119	616407	18.80
Aroclor-1260 {3}	9.41	8.51	10.31	1826305	1544968	15.40
Aroclor-1260 {4}	9.89	8.99	10.79	952284	838008	12.00
Aroclor-1260 {5}	10.95	10.05	11.85	412992	431179	4.40

Data File: Y2408.C

GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.76	3.69	3.83	731183	668693	8.55
Aroclor-1016 {2}	4.36	4.29	4.43	1586125	1509293	4.84
Aroclor-1016 {3}	5.11	5.04	5.18	3717574	3393540	8.72
Aroclor-1016 {4}	5.32	5.25	5.39	1636714	1462308	10.66
Aroclor-1016 {5}	5.49	5.42	5.56	1271295	1157754	8.93
Aroclor-1260	7.85	6.95	8.75	1372418	1242036	9.50
Aroclor-1260 {2}	8.11	7.21	9.01	1997230	1806791	9.54
Aroclor-1260 {3}	9.70	8.80	10.60	1723918	1703542	1.18
Aroclor-1260 {4}	10.20	9.30	11.10	3804274	3864696	1.59
Aroclor-1260 {5}	10.79	9.89	11.69	2719408	2757074	1.39

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013

Instrument ID: GC-Y

Data File: Y2416.D

GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.23	3.16	3.30	394332	330763	16.12
Aroclor-1016 {2}	4.05	3.98	4.12	546451	453191	17.07
Aroclor-1016 {3}	4.60	4.53	4.67	687780	568120	17.40
Aroclor-1016 {4}	5.10	5.03	5.17	331025	296002	10.58
Aroclor-1016 {5}	5.50	5.42	5.56	562872	474340	15.73
Aroclor-1260	8.27	7.36	9.16	1606726	1373088	14.54
Aroclor-1260 {2}	8.94	8.04	9.84	759119	642532	15.36
Aroclor-1260 {3}	9.41	8.51	10.31	1826305	1615958	11.52
Aroclor-1260 {4}	9.89	8.99	10.79	952284	860268	9.66
Aroclor-1260 {5}	10.95	10.05	11.85	412992	396898	3.90

Data File: Y2416.C

GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.76	3.69	3.83	731183	685886	6.20
Aroclor-1016 {2}	4.36	4.29	4.43	1586125	1332722	15.98
Aroclor-1016 {3}	5.11	5.04	5.18	3717574	3491473	6.08
Aroclor-1016 {4}	5.32	5.25	5.39	1636714	1508222	7.85
Aroclor-1016 {5}	5.49	5.42	5.56	1271295	1193600	6.11
Aroclor-1260	7.85	6.95	8.75	1372418	1279692	6.76
Aroclor-1260 {2}	8.10	7.21	9.01	1997230	1882484	5.75
Aroclor-1260 {3}	9.70	8.80	10.60	1723918	1810727	5.04
Aroclor-1260 {4}	10.20	9.30	11.10	3804274	4151895	9.14
Aroclor-1260 {5}	10.79	9.89	11.69	2719408	3028988	11.38

**PCB RETENTION TIME SHIFT SUMMARY**

**Instrument ID:** GC-R

**Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

<b>TCMX 1</b>	<b><u>2.74</u></b>	<b>DCB 1</b>	<b><u>12.09</u></b>	<b>TCMX 2</b>	<b><u>2.56</u></b>	<b>DCB 2</b>	<b><u>11.94</u></b>
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<b>Client ID</b>	<b>Lab</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>	<b>TCMX 1</b>	<b>RT #</b>	<b>DCB 1</b>	<b>RT #</b>	<b>TCMX 2</b>	<b>RT #</b>	<b>DCB 2</b>	<b>RT #</b>
PCB	BLKS131018-13	10/21/2013	10:11	2.74		12.09		2.56		11.94	
II-35N_(	E13-10150-015	10/21/2013	10:28	2.74		12.09		2.56		11.94	
B-5/3.5-	E13-10178-003	10/21/2013	10:46	2.74		12.08		2.56		11.93	
GG-42_(0	E13-10192-001	10/21/2013	11:03	2.74		12.08		2.56		11.93	
GG-42_(1	E13-10192-002	10/21/2013	11:20	2.74		12.08		2.56		11.93	
GG-42_(2	E13-10192-003	10/21/2013	11:38	2.74		12.09		2.56		11.93	
HH-43_(0	E13-10192-004	10/21/2013	11:55	2.74		12.08		2.56		11.93	
HH-43_(1	E13-10192-005	10/21/2013	12:13	2.74		12.08		2.56		11.93	
GG-43_(0	E13-10192-006	10/21/2013	12:30	2.74		12.08		2.56		11.93	
GG-43_(1	E13-10192-007	10/21/2013	12:48	2.74		12.08		2.56		11.93	
GG-43_(2	E13-10192-008	10/21/2013	13:05	2.74		12.09		2.56		11.93	
GG-44_(0	E13-10192-009	10/21/2013	13:23	2.74		12.08		2.56		11.93	
GG-44_(1	E13-10192-010	10/21/2013	13:40	2.74		12.08		2.56		11.93	
WC-1	E13-10351-001	10/21/2013	14:15	2.74		12.08		2.56		11.93	
IB-2A/1.	E13-10149-003	10/21/2013	14:32	2.74		12.09		2.56		11.94	
SW-201A	E13-10225-001	10/21/2013	14:50	2.74		12.09		2.56		11.93	
SW-201B	E13-10225-002	10/21/2013	15:07	2.74		12.09		2.56		11.94	
SW-202A	E13-10225-003	10/21/2013	15:25	2.74		12.09		2.56		11.94	
SW-202B	E13-10225-004	10/21/2013	15:42	2.74		12.09		2.56		11.94	
SW-203A	E13-10225-005	10/21/2013	16:00	2.74		12.08		2.56		11.93	
SW-203B	E13-10225-006	10/21/2013	16:17	2.74		12.09		2.56		11.94	
PCB	10225-006MS	10/21/2013	17:11	2.74		12.09		2.56		11.94	
PCB	10225-006MSD	10/21/2013	17:28	2.74		12.09		2.56		11.94	
PCB	LCSS131018-13	10/21/2013	17:46	2.74		12.09		2.56		11.94	

Surrogate QC Limits

**TCMX = Tetrachloro-m-xylene**

(  $\pm$  0.10 Minutes )

**DCB = Decachlorobiphenyl**

(  $\pm$  0.10 Minutes )

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

## PCB RETENTION TIME SHIFT SUMMARY

**Instrument ID:** GC-Y

**Column:** DB-5/DB-1701P

### Surrogate RT from initial calibration :

**TCMX 1**    **2.77**                  DCB 1    **12.04**    **TCMX 2**    **2.89**                  DCB 2    **12.48**

	<b>Lab</b>	<b>Date</b>	<b>Time</b>	<b>TCMX 1</b>	<b>DCB 1</b>	<b>TCMX 2</b>	<b>DCB 2</b>		
<b>Client ID</b>	<b>Sample ID</b>	<b>Analyzed</b>	<b>Analyzed</b>	<b>RT</b>	<b>#</b>	<b>RT</b>	<b>#</b>	<b>RT</b>	<b>#</b>
PCB	BLKA131021-17	10/22/2013	21:25	2.77		12.04		2.89	
PCB	LCSA131021-17	10/22/2013	21:43	2.77		12.04		2.89	
OUTFALL	E13-10256-001	10/22/2013	22:00	2.77		12.04		2.89	
FB-21	E13-10192-011	10/22/2013	22:17	2.77		12.04		2.89	
FB-22	E13-10227-014	10/22/2013	22:35	2.77		12.04		2.89	
PCB	E13-10256-001MS	10/22/2013	22:52	2.77		12.04		2.89	
PCB	E13-10256-001MSD	10/22/2013	23:09	2.77		12.04		2.89	

## Surrogate QC Limits

**DCB = Decachlorobiphenyl** ( ± 0.10 Minutes )

# Column to be used to flag recovery values

\* Values outside of QC limits

#### D Surrogate diluted out

### M Matrix interference

**PCB SAMPLE DATA**

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E13-10192 0050

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4851.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 11:03  
 Operator : JS  
 Sample : GG-42\_(0,E13-10192-001,S,5.22g,77.8,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:21:34 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

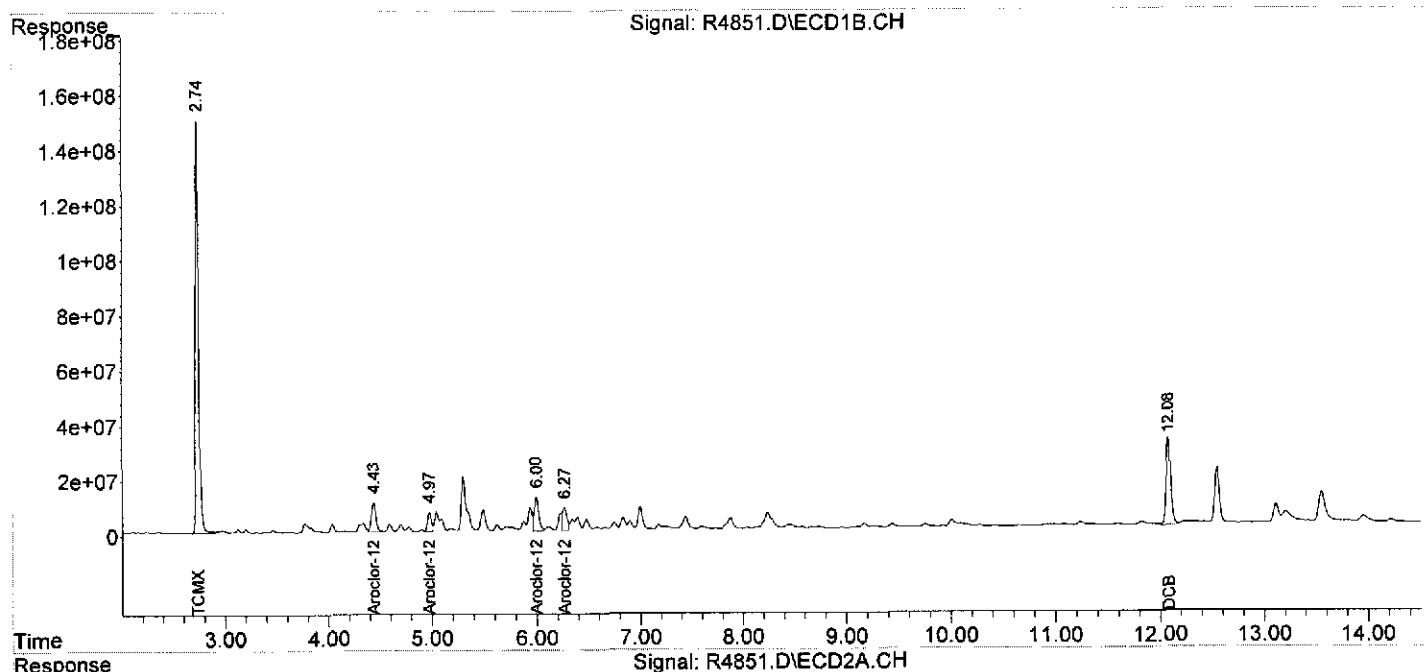
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3125.4E6	6277.6E6	259.036	239.063
Spiked Amount	200.000			Recovery	= 129.52%	119.53%
2) S DCB	12.08	11.93	995.1E6	2108.4E6	252.287	254.511
Spiked Amount	200.000			Recovery	= 126.14%	127.26%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.43	4.64	331.1E6	610.6E6	507.693	433.746
24) L6 Aroclor-1248	{2}	4.97	5.21	177.1E6	925.1E6	471.628
25) L6 Aroclor-1248	{3}	0.00	5.60	0	713.2E6	N.D. d 470.571 #
26) L6 Aroclor-1248	{4}	6.00	5.75	384.2E6	463.3E6	468.474
27) L6 Aroclor-1248	{5}	6.27	6.09	247.0E6	254.3E6	441.645m 346.289
Sum Aroclor-1248				1139.2E6	2966.5E6	1889.438
Average Aroclor-1248					472.360	2025.222
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4851.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 11:03  
Operator : JS  
Sample : GG-42\_(0,E13-10192-001,S,5.22g,77.8,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:21:34 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4852.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 11:20  
 Operator : JS  
 Sample : GG-42\_(1,E13-10192-002,S,5.18g,87.0,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:19:36 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

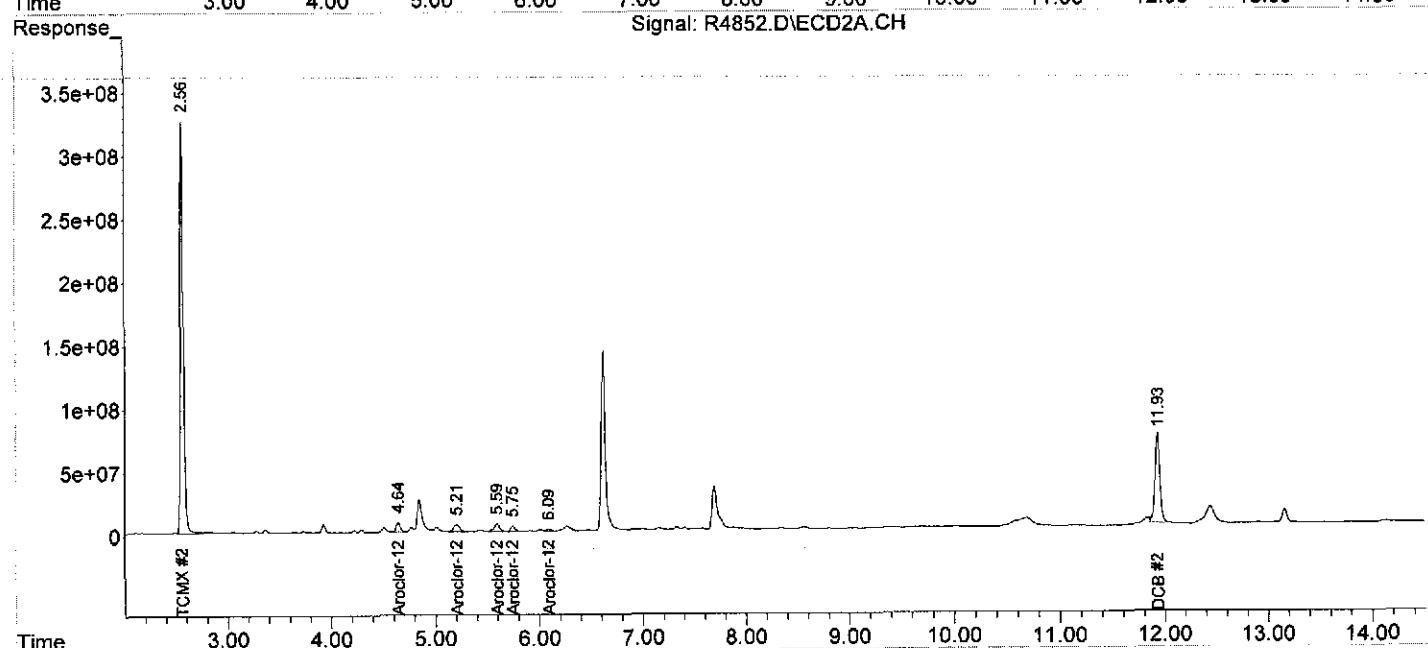
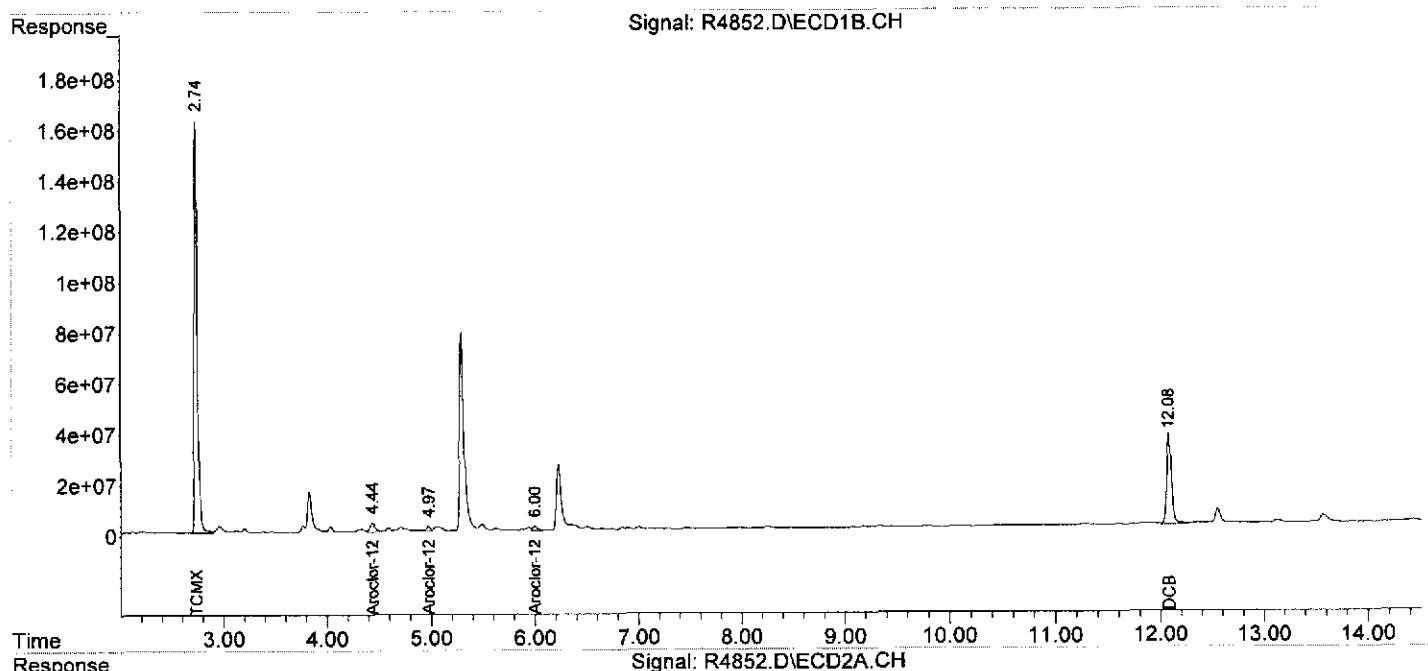
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3390.0E6	7013.2E6	280.967	267.076
Spiked Amount	200.000			Recovery	= 140.48%	133.54%
2) S DCB	12.08	11.93	1145.0E6	2306.2E6	290.283	278.393m
Spiked Amount	200.000			Recovery	= 145.14%	139.20%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.43	4.65	120.8E6	201.6E6	185.281	143.185
24) L6 Aroclor-1248 {2}	4.97	5.21	49908132	235.4E6	132.941	110.776
25) L6 Aroclor-1248 {3}	0.00	5.59	0	228.0E6	N.D. d	150.446 #
26) L6 Aroclor-1248 {4}	6.00	5.75	62291940	123.7E6	75.958	90.566
27) L6 Aroclor-1248 {5}	0.00	6.09	0	44005412	N.D. d	59.927 #
Sum Aroclor-1248			233.0E6	832.7E6	394.180	554.899
Average Aroclor-1248					131.393	110.980
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4852.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 11:20  
Operator : JS  
Sample : GG-42\_(1,E13-10192-002,S,5.18g,87.0,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:19:36 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4853.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 11:38  
 Operator : JS  
 Sample : GG-42\_(2,E13-10192-003,S,5.48g,64.2,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:18:18 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

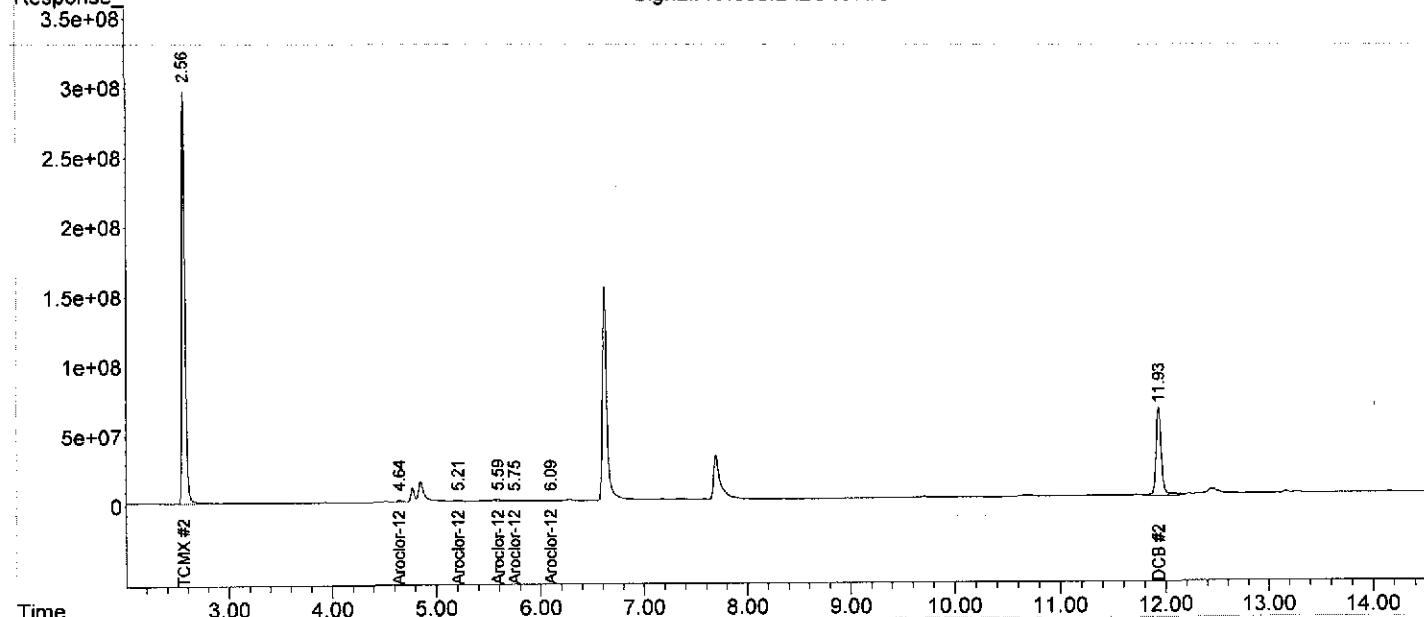
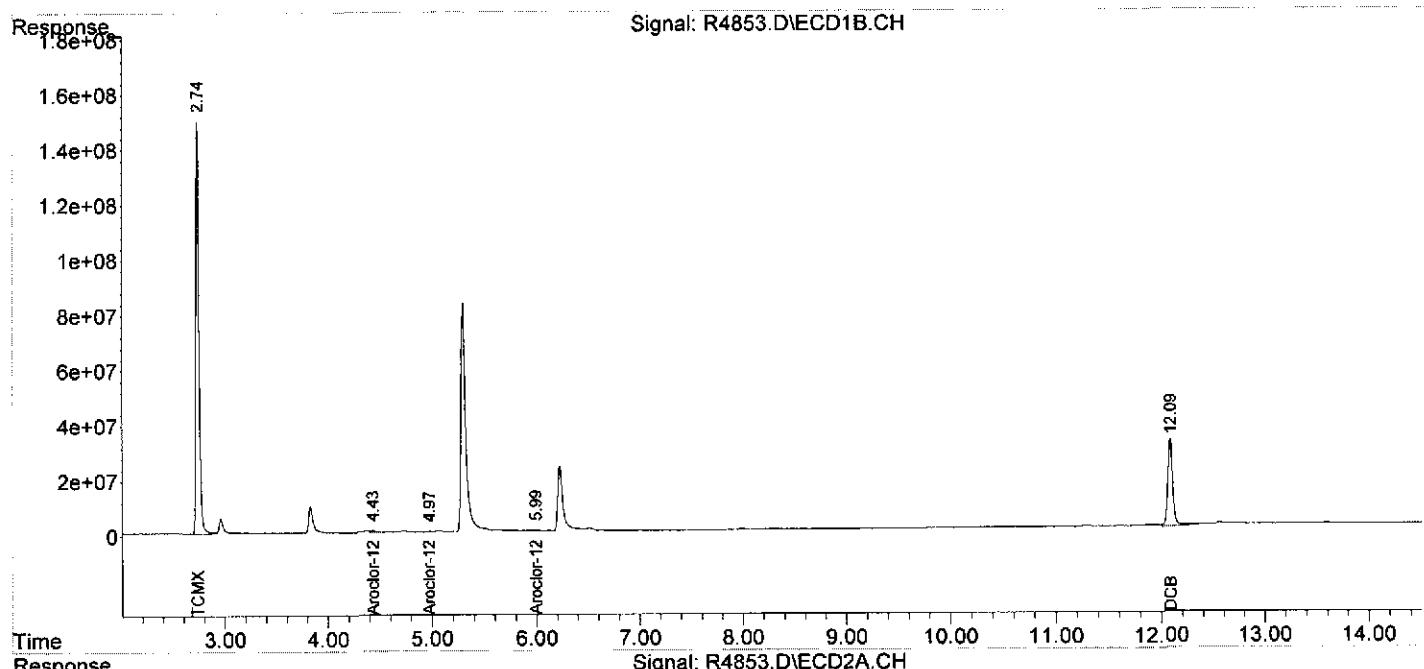
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3166.5E6	6444.4E6	262.438	245.415
Spiked Amount	200.000		Recovery	=	131.22%	122.71%
2) S DCB	12.09	11.93	1048.0E6	2292.6E6	265.708	276.752
Spiked Amount	200.000		Recovery	=	132.85%	138.38%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.43	4.65	19897128	28724309	30.514	20.406 #
24) L6 Aroclor-1248 {2}	4.97	5.21	6032941	44701921	16.070	21.033 #
25) L6 Aroclor-1248 {3}	0.00	5.59	0	46363629	N.D. d	30.591 #
26) L6 Aroclor-1248 {4}	6.00	5.75	16297210	19945517	19.873	14.607 #
27) L6 Aroclor-1248 {5}	0.00	6.10	0	14305681	N.D. d	19.481 #
Sum Aroclor-1248			42227280	154.0E6	66.456	106.119
Average Aroclor-1248					22.152	21.224
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4853.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 11:38  
Operator : JS  
Sample : GG-42 (2,E13-10192-003,S,5.48g,64.2,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:18:18 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4854.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 11:55  
 Operator : JS  
 Sample : HH-43\_(0,E13-10192-004,S,5.15g,84.3,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:16:21 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

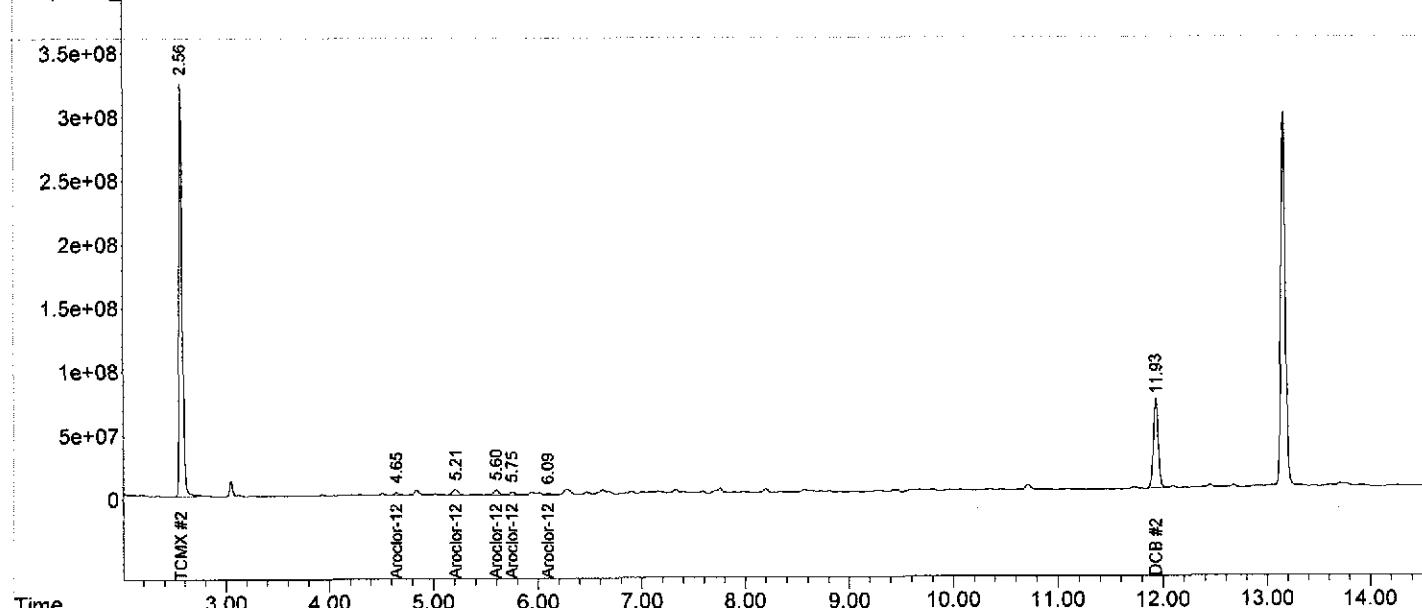
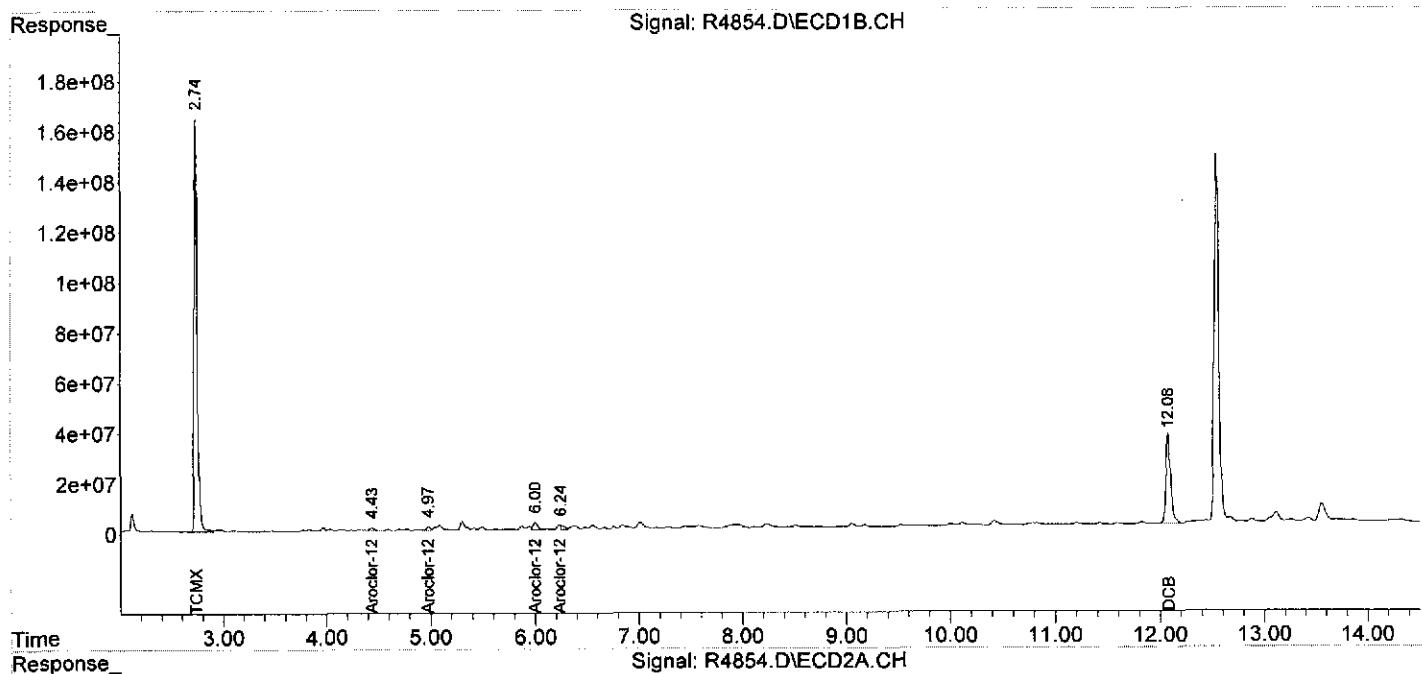
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3426.1E6	6907.4E6	283.954	263.047
Spiked Amount	200.000			Recovery	= 141.98%	131.52%
2) S DCB	12.08	11.93	1110.0E6	2240.5E6	281.421m	270.457m
Spiked Amount	200.000			Recovery	= 140.71%	135.23%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.43	4.65	34365572	64244604	52.702	45.639
24) L6 Aroclor-1248	{2}	4.97	5.21	37096305	181.9E6	98.814
25) L6 Aroclor-1248	{3}	0.00	5.60	0	162.3E6	N.D. d
26) L6 Aroclor-1248	{4}	6.00	5.75	94770599	87622496	115.563
27) L6 Aroclor-1248	{5}	6.24	6.09	46142288	52003019	82.520m
Sum Aroclor-1248				212.4E6	548.0E6	349.599
Average Aroclor-1248					87.400	74.656
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4854.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 11:55  
Operator : JS  
Sample : HH-43\_(0,E13-10192-004,S,5.15g,84.3,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:16:21 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4855.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 12:13  
 Operator : JS  
 Sample : HH-43\_(1,E13-10192-005,S,5.35g,87.3,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:13:59 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

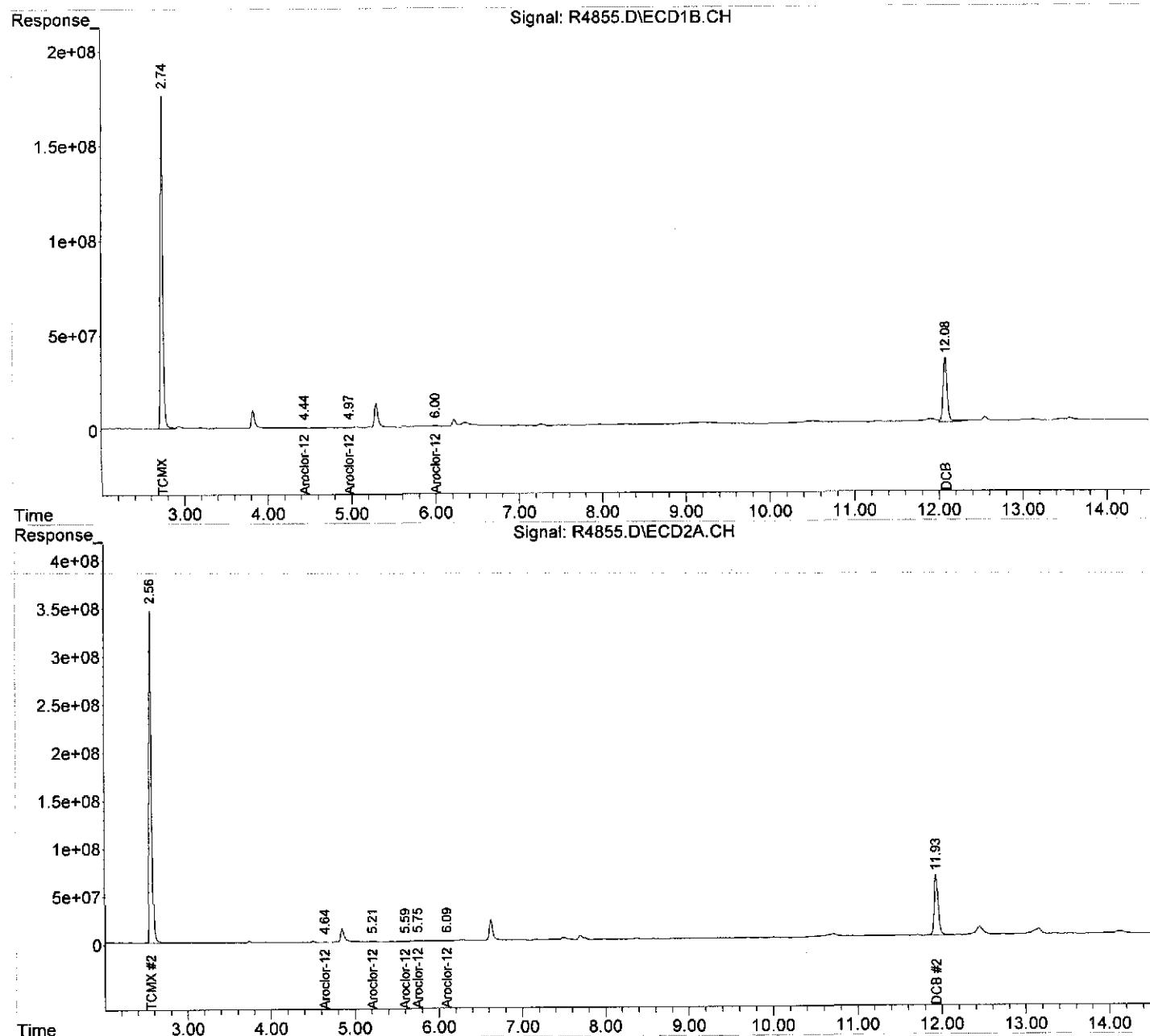
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3486.0E6	7114.1E6	288.918	270.917
Spiked Amount	200.000			Recovery	= 144.46%	135.46%
2) S DCB	12.08	11.93	1151.4E6	2097.9E6	291.918	253.243
Spiked Amount	200.000			Recovery	= 145.96%	126.62%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.44	4.65	9228172	10466274	14.152	7.435 #
24) L6 Aroclor-1248	{2}	4.97	5.21	8337903 44283732	22.210	20.836
25) L6 Aroclor-1248	{3}	0.00	5.59	0 45601200	N.D. d	30.088m#
26) L6 Aroclor-1248	{4}	6.00	5.75	19314951 16122470	23.553	11.807m#
27) L6 Aroclor-1248	{5}	0.00	6.09	0 22522887	N.D. d	30.672 #
Sum Aroclor-1248				36881026	139.0E6	59.914
Average Aroclor-1248						100.839
					19.971	20.168
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4855.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 12:13  
Operator : JS  
Sample : HH-43\_(1,E13-10192-005,S,5.35g,87.3,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:13:59 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4856.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 12:30  
 Operator : JS  
 Sample : GG-43\_(0,E13-10192-006,S,5.10g,87.8,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:11:30 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

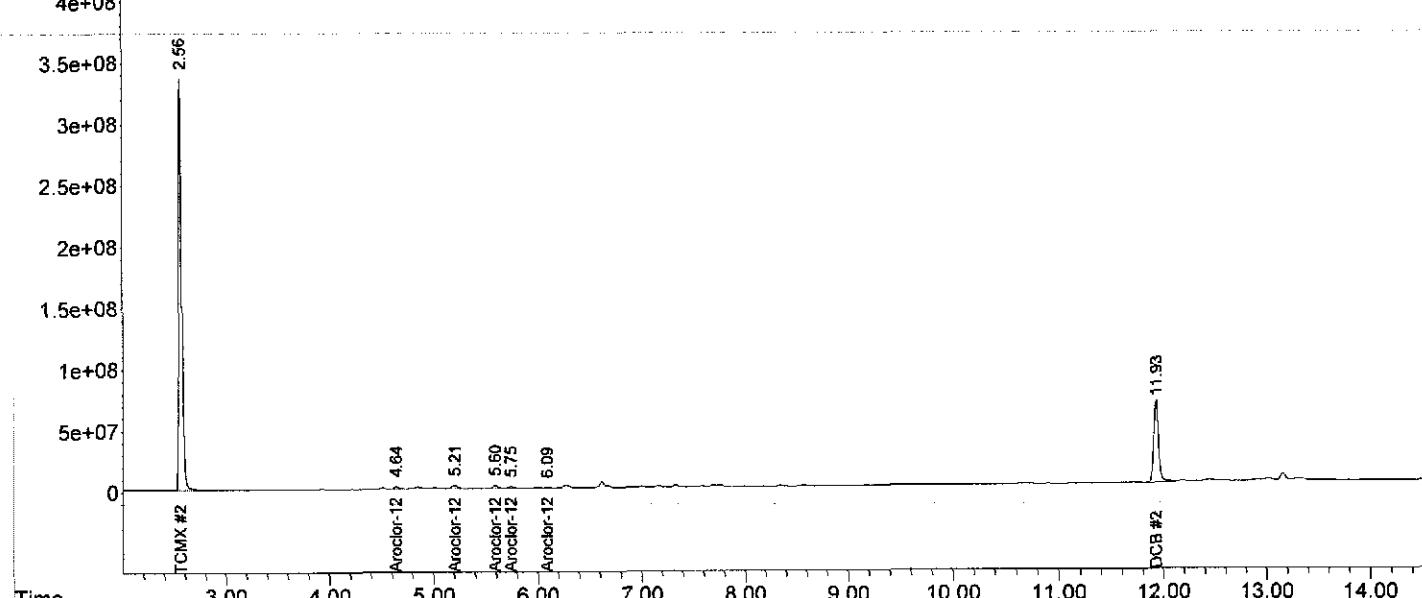
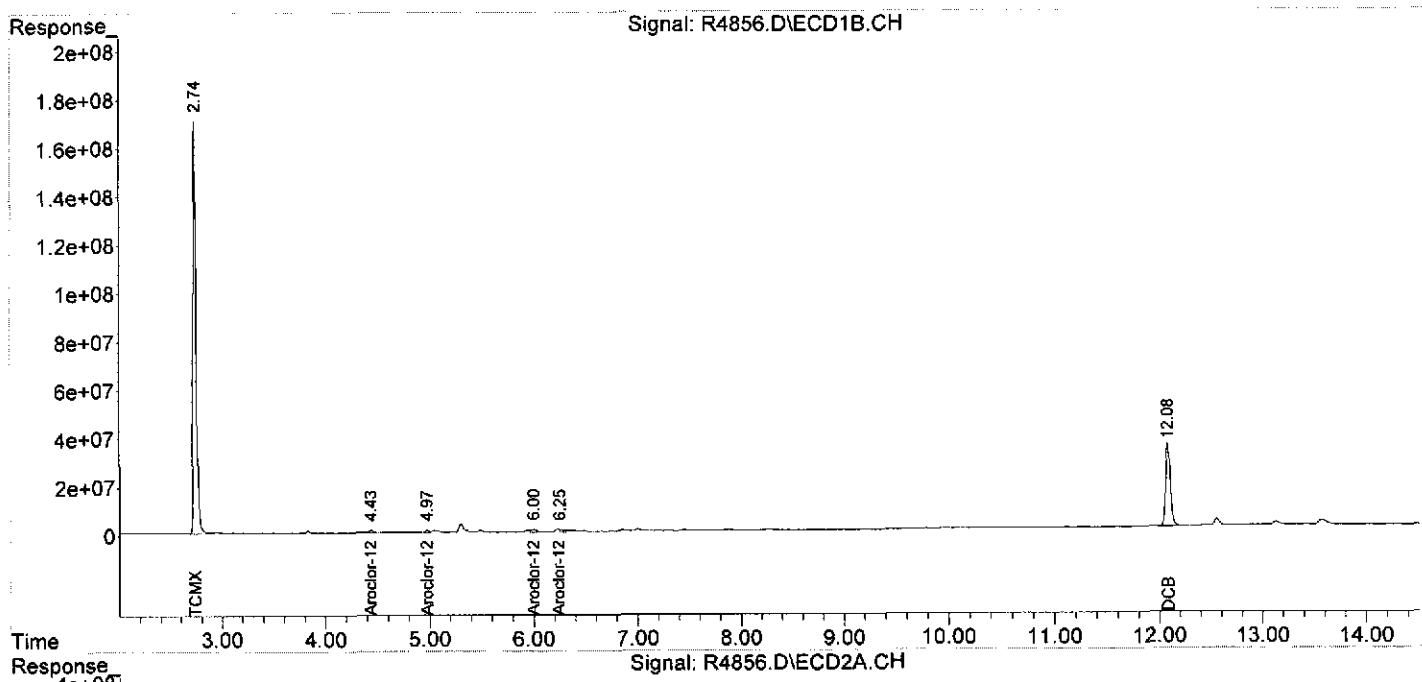
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3513.5E6	7119.2E6	291.198	271.111
Spiked Amount	200.000			Recovery	= 145.60%	135.56%
2) S DCB	12.08	11.93	1091.6E6	2203.4E6	276.752m	265.978
Spiked Amount	200.000			Recovery	= 138.38%	132.99%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.43	4.65	26765401	54083694	41.047	38.421
24) L6 Aroclor-1248 {2}	4.97	5.21	22731898	111.0E6	60.551	52.237
25) L6 Aroclor-1248 {3}	0.00	5.60	0	87622345	N.D. d	57.814 #
26) L6 Aroclor-1248 {4}	6.00	5.75	42234093	54284732	51.500	39.756
27) L6 Aroclor-1248 {5}	6.25	6.09	28218349	23722331	50.465m	32.305 #
Sum Aroclor-1248			119.9E6	330.7E6	203.563	220.533
Average Aroclor-1248					50.891	44.107
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4856.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 12:30  
Operator : JS  
Sample : GG-43\_(0,E13-10192-006,S,5.10g,87.8,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:11:30 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4857.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 12:48  
 Operator : JS  
 Sample : GG-43\_(1,E13-10192-007,S,5.64g,77.3,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:05:44 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

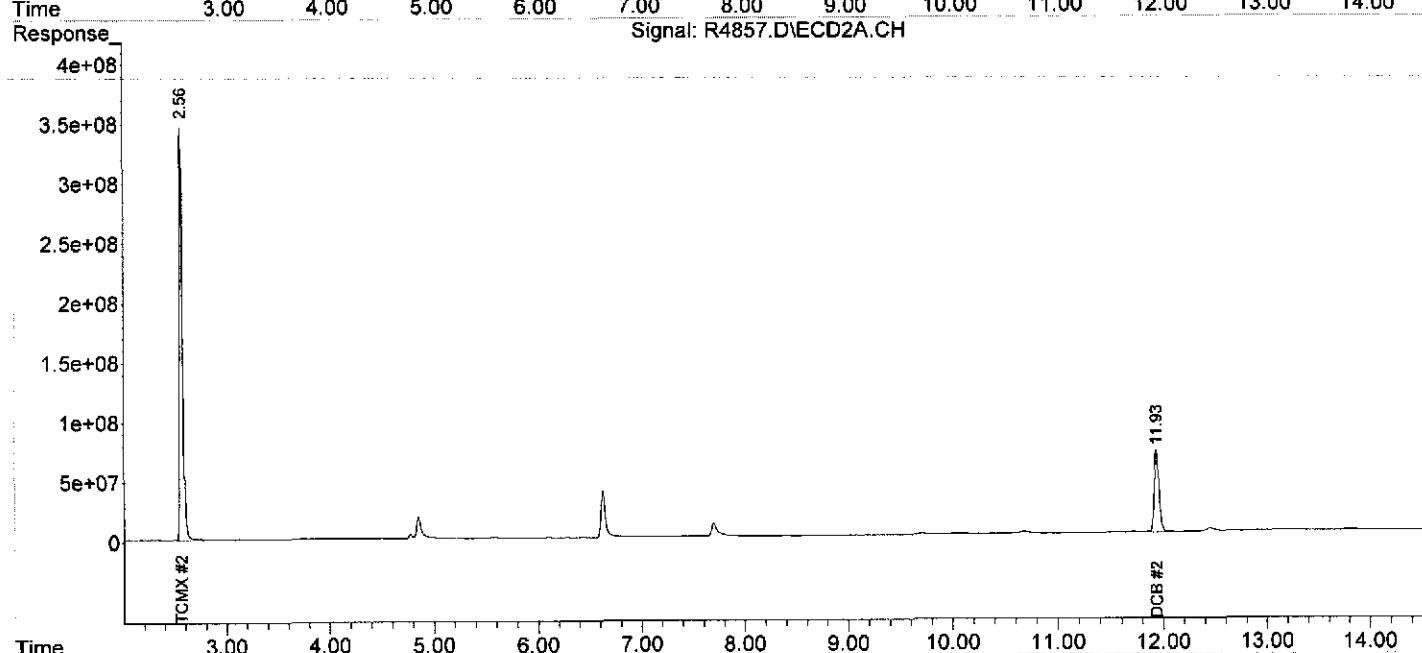
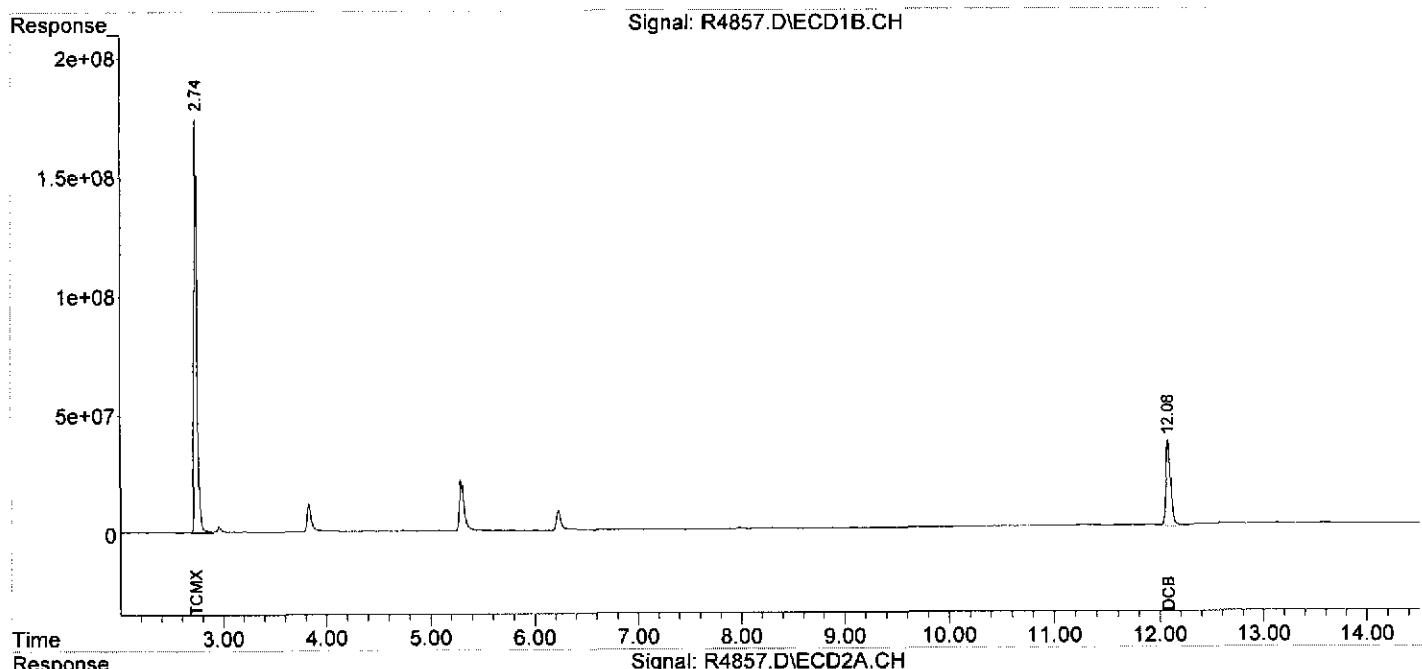
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3498.5E6	7161.8E6	289.960	272.735
Spiked Amount	200.000			Recovery	= 144.98%	136.37%
2) S DCB	12.08	11.93	1175.5E6	2236.1E6	298.016	269.933
Spiked Amount	200.000			Recovery	= 149.01%	134.97%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4857.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 12:48  
Operator : JS  
Sample : GG-43\_(1,E13-10192-007,S,5.64g,77.3,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:05:44 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4858.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 13:05  
 Operator : JS  
 Sample : GG-43\_(2,E13-10192-008,S,5.10g,27.9,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:04:43 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

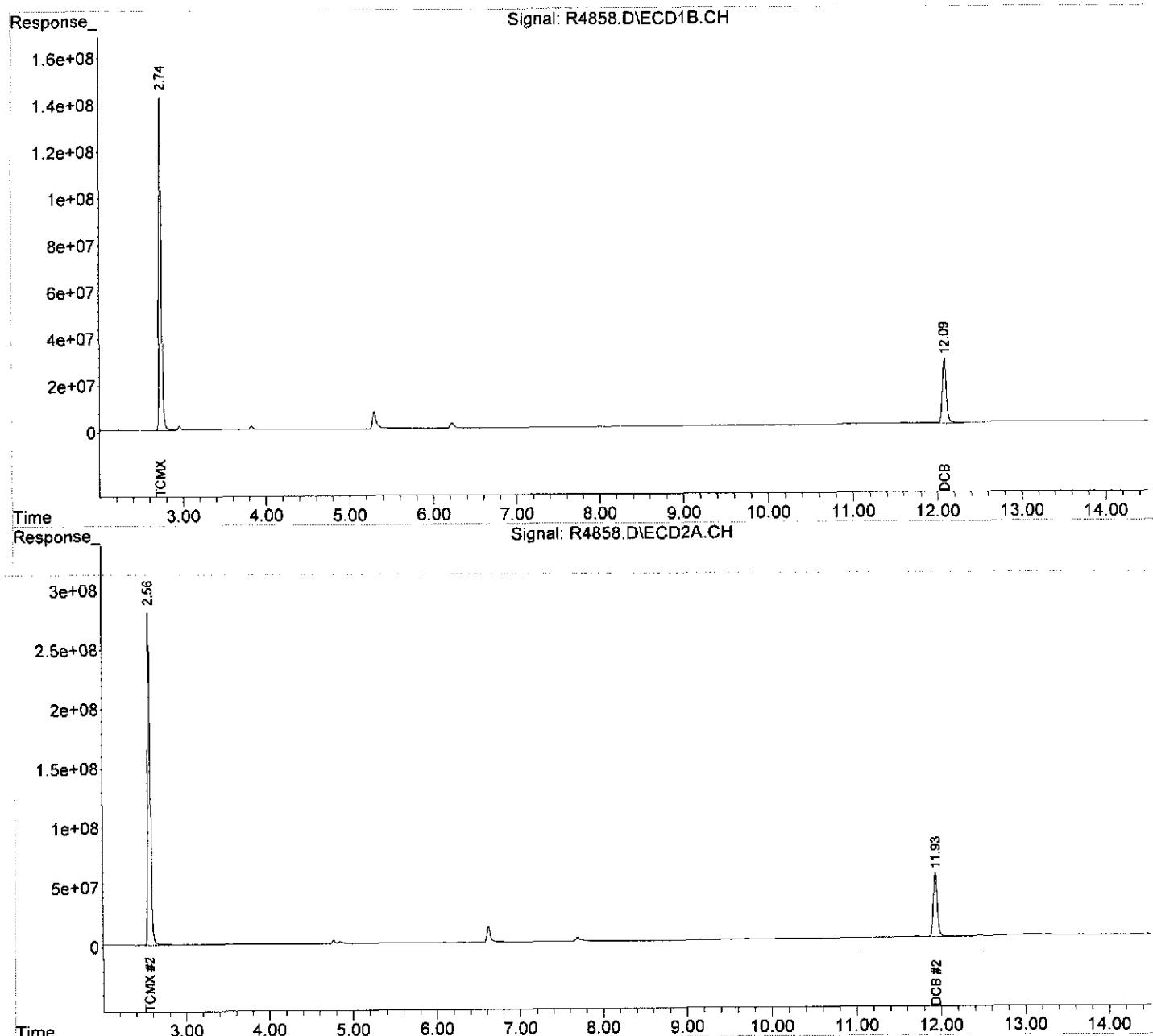
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	2976.1E6	6013.9E6	246.662	229.021
Spiked Amount	200.000		Recovery	=	123.33%	114.51%
2) S DCB	12.09	11.93	970.1E6	1813.5E6	245.958	218.920
Spiked Amount	200.000		Recovery	=	122.98%	109.46%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4858.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 13:05  
Operator : JS  
Sample : GG-43\_(2,E13-10192-008,S,5.10g,27.9,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:04:43 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4859.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 13:23  
 Operator : JS  
 Sample : GG-44\_(0,E13-10192-009,S,5.70g,84.3,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:03:51 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

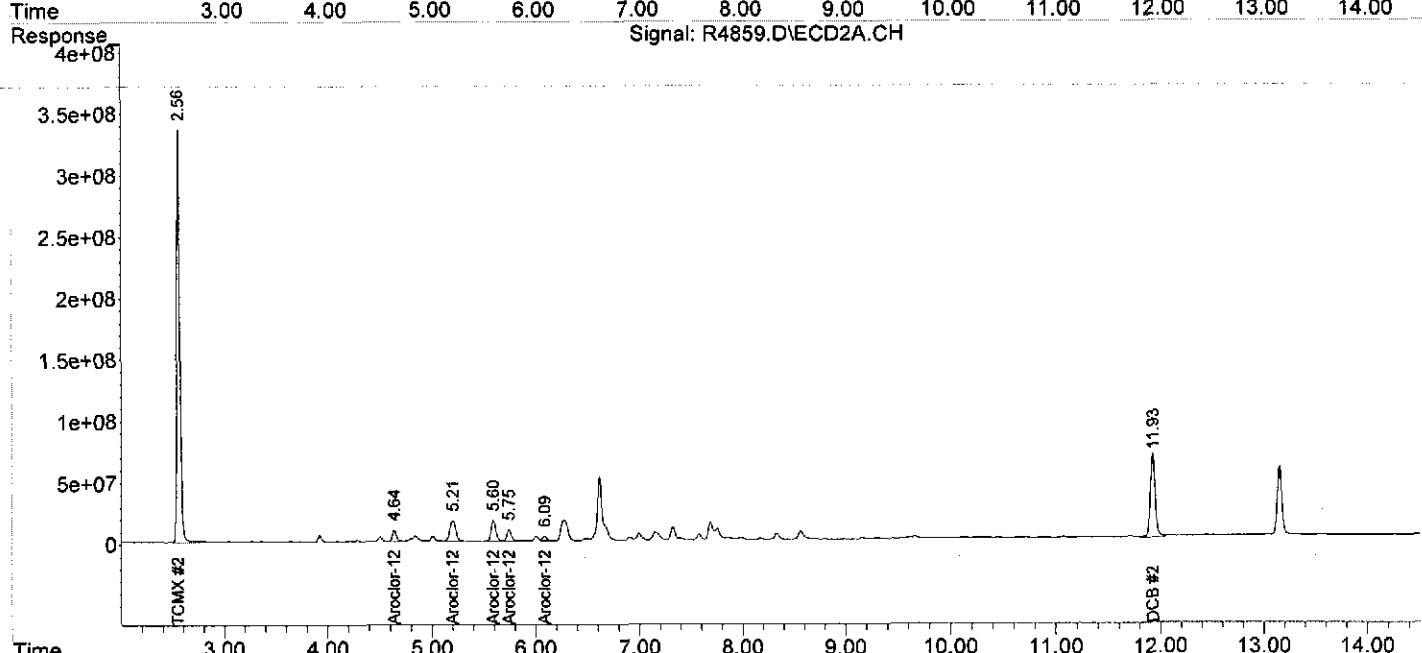
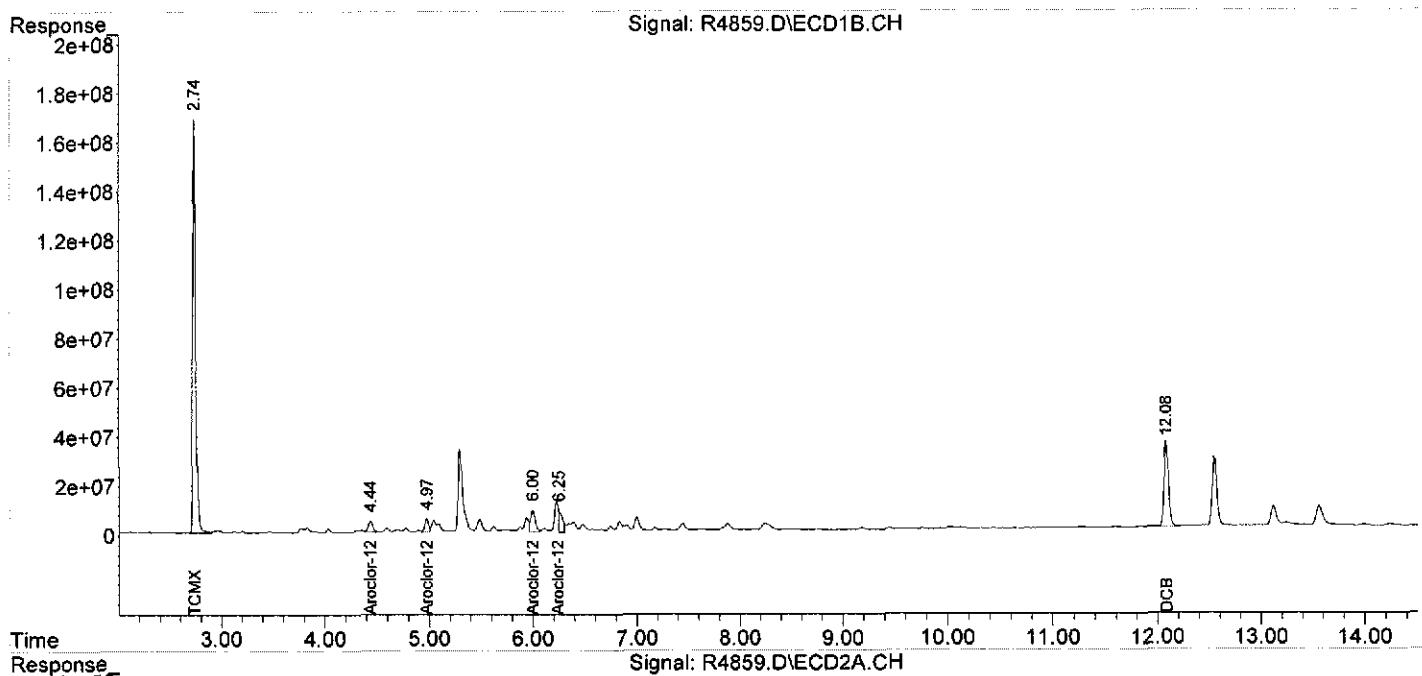
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3402.2E6	6927.3E6	281.977	263.802
Spiked Amount	200.000			Recovery	= 140.99%	131.90%
2) S DCB	12.08	11.93	1079.3E6	2228.1E6	273.621	268.958
Spiked Amount	200.000			Recovery	= 136.81%	134.48%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.44	4.64	135.2E6	249.3E6	207.315	177.082
24) L6 Aroclor-1248 {2}	4.97	5.21	133.4E6	671.1E6	355.325	315.758
25) L6 Aroclor-1248 {3}	0.00	5.60	0	534.4E6	N.D. d	352.572 #
26) L6 Aroclor-1248 {4}	6.00	5.75	277.7E6	288.0E6	338.677	210.884 #
27) L6 Aroclor-1248 {5}	6.25	6.09	200.7E6	128.9E6	358.872m	175.571 #
Sum Aroclor-1248			747.0E6	1871.6E6	1260.189	1231.866
Average Aroclor-1248					315.047	246.373
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4859.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 13:23  
Operator : JS  
Sample : GG-44\_(0,E13-10192-009,S,5.70g,84.3,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:03:51 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4860.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 13:40  
 Operator : JS  
 Sample : GG-44\_(1,E13-10192-010,S,5.14g,70.5,20  
 Misc : 131018-13,10/18/13,10/14/13,1  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 14:46:34 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

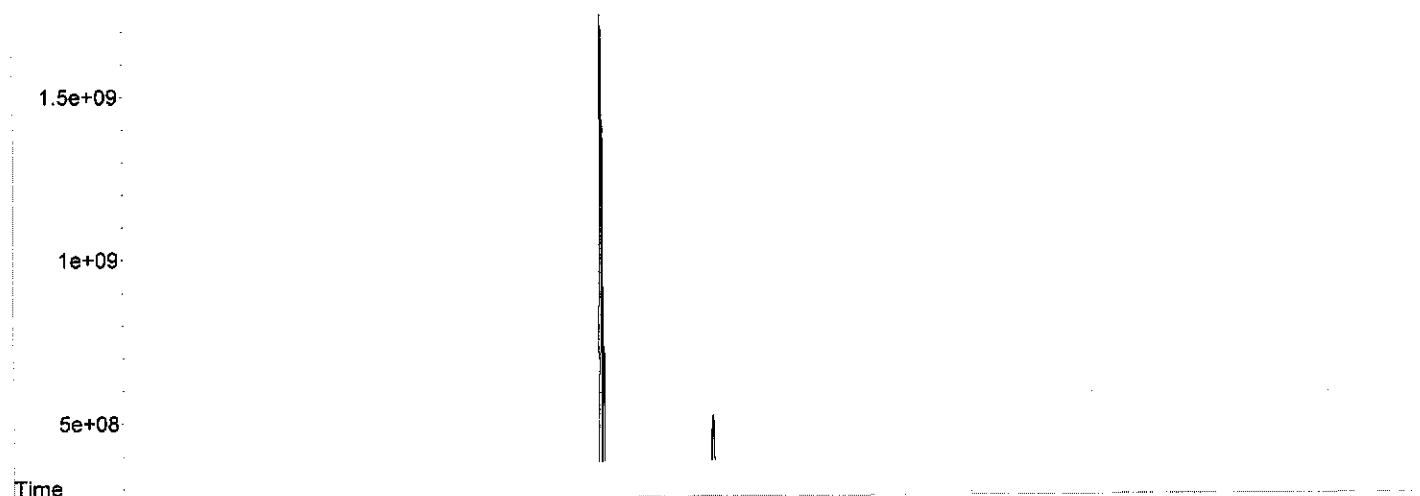
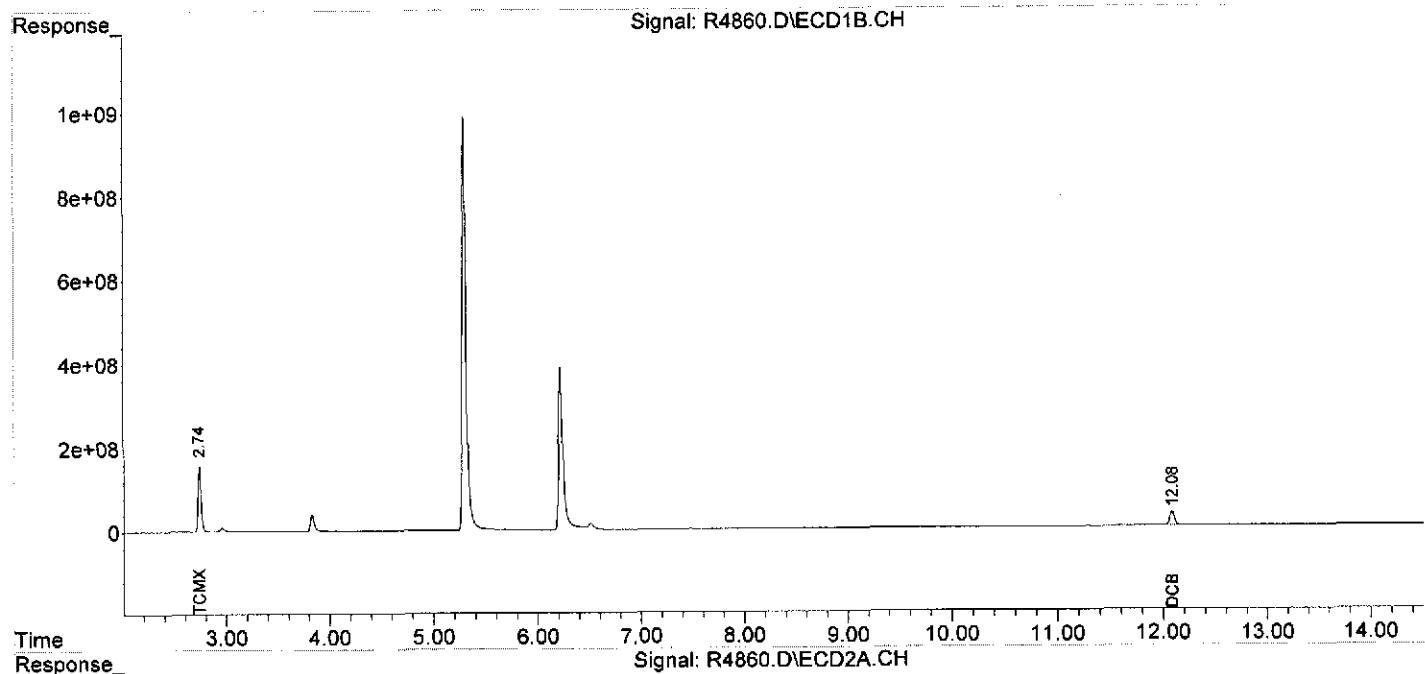
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	3175.9E6	6594.1E6	263.217	251.114
Spiked Amount	200.000		Recovery	=	131.61%	125.56%
2) S DCB	12.08	11.93	1094.5E6	2200.4E6	277.487	265.615
Spiked Amount	200.000		Recovery	=	138.74%	132.81%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

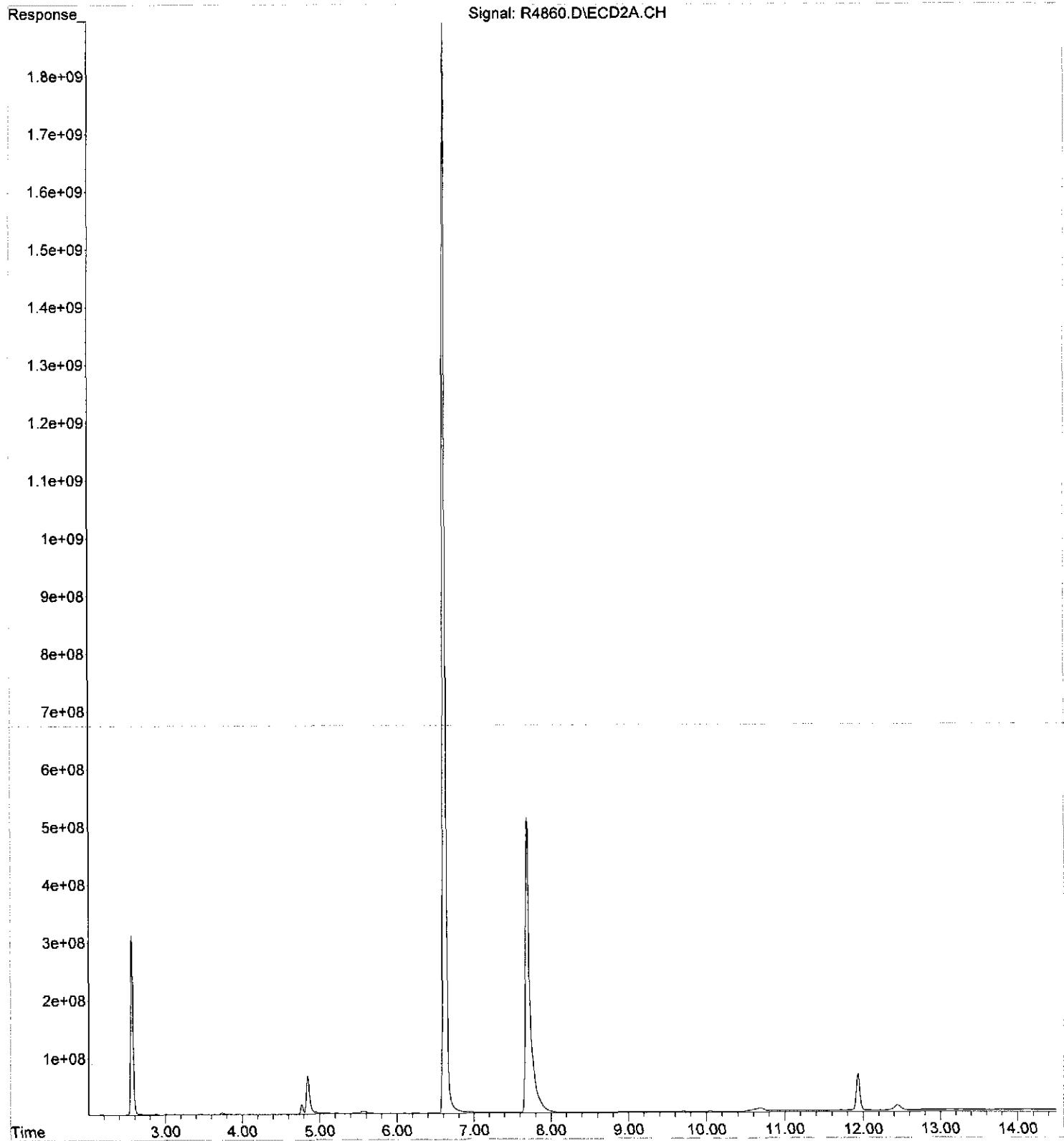
Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4860.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 13:40  
Operator : JS  
Sample : GG-44\_(1,E13-10192-010,S,5.14g,70.5,20  
Misc : 131018-13,10/18/13,10/14/13,1  
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 14:46:34 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



File : C:\MSDCHEM\1\DATA\10-21-13\R4860.D  
Operator : JS  
Acquired : 21 Oct 2013 13:40 using AcqMethod RPCB1018.M  
Instrument : GC\_R  
Sample Name: GG-44\_(1,E13-10192-010,S,5.14g,70.5,20  
Misc Info : 131018-13,10/18/13,10/14/13,1  
Vial Number: 31



## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : Y2412.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 22:17  
 Operator : NG  
 Sample : FB-21,E13-10192-011,A,1000ml,100,5  
 Misc : 131021-17,10/21/13,10/14/13,1  
 ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 23 10:28:51 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\YPCB0925.M  
 Quant Title :  
 QLast Update : Mon Sep 30 10:08:11 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.77	2.89	3247.4E6	6867.3E6	175.891	186.997
Spiked Amount	200.000			Recovery	=	87.95% 93.50%
2) S DCB	12.04	12.48	927.1E6	2265.6E6	150.428	175.397
Spiked Amount	200.000			Recovery	=	75.21% 87.70%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

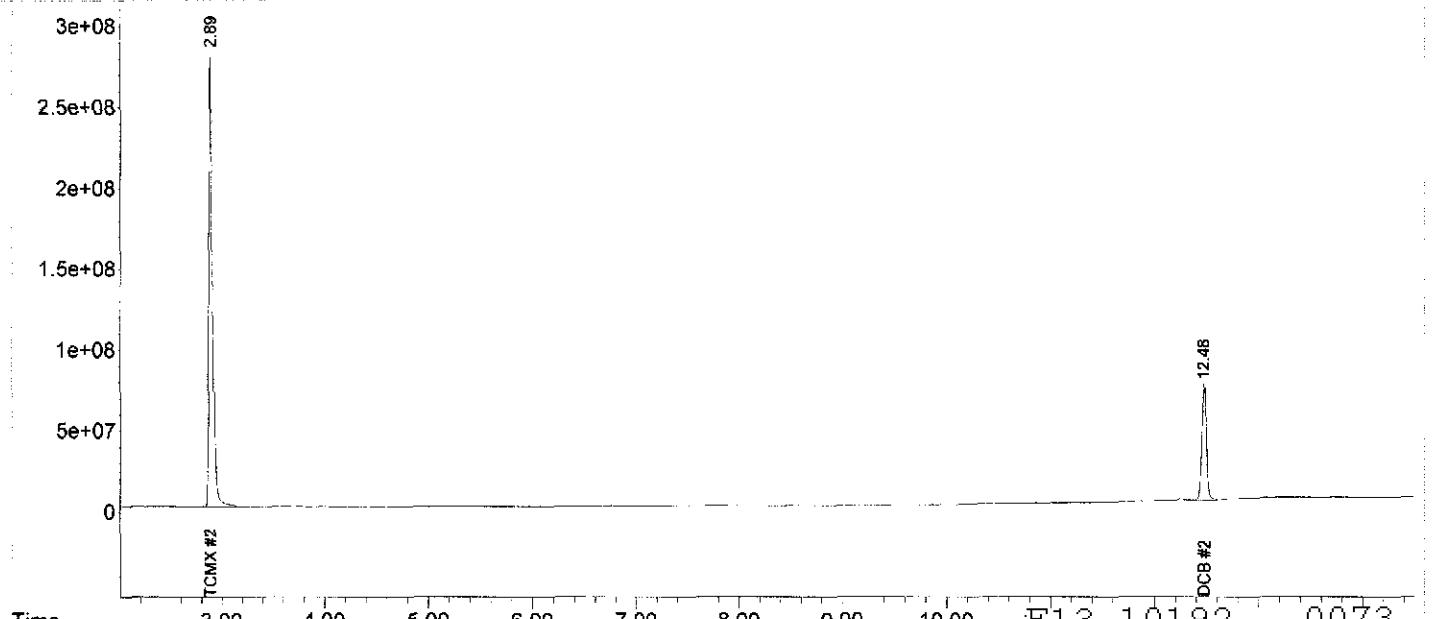
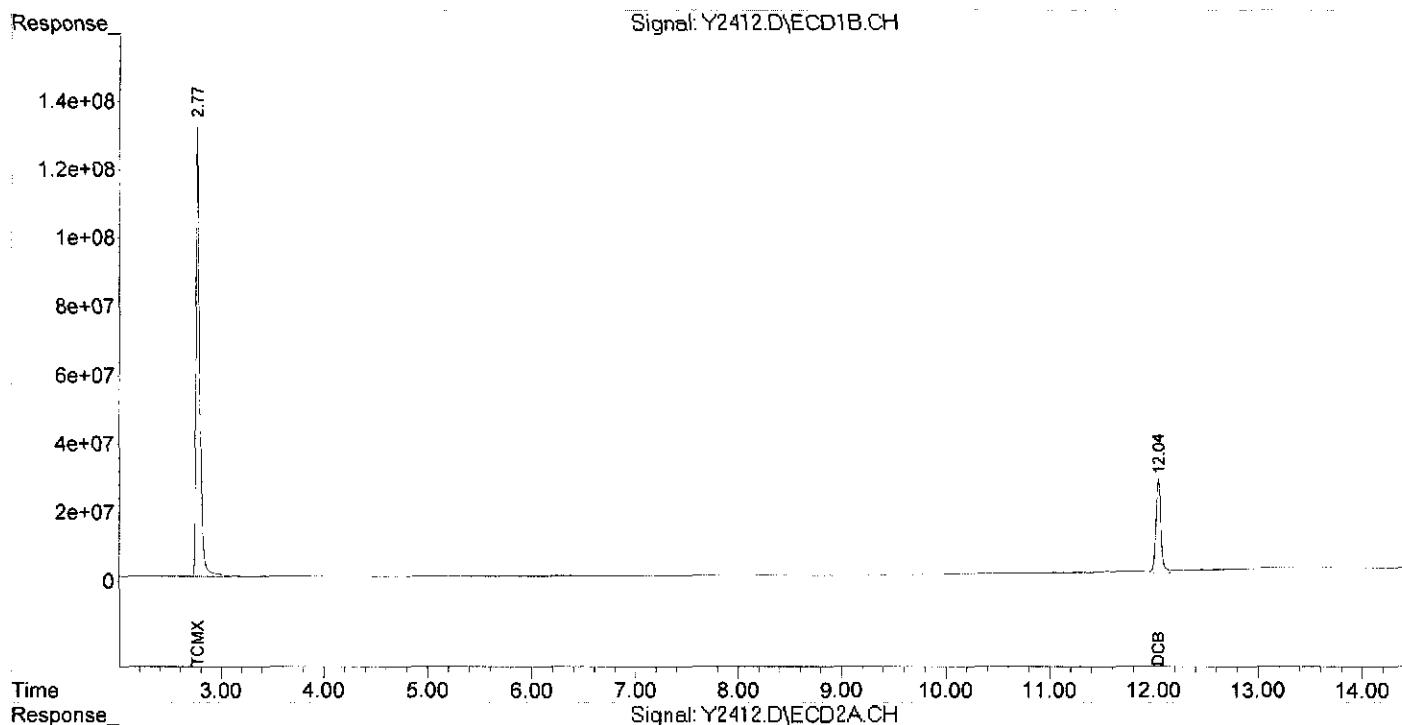
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : Y2412.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 22:17  
Operator : NG  
Sample : FB-21,E13-10192-011,A,1000ml,100,5  
Misc : 131021-17,10/21/13,10/14/13,1  
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 23 10:28:51 2013  
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0925.M  
Quant Title :  
QLast Update : Mon Sep 30 10:08:11 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: BLKS131018-13  
Client ID: PCB  
Date Received: NA  
Date Extracted: 10/18/2013  
Date Analyzed: 10/21/2013  
Data file: R4848.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.00g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: NA

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C — Common laboratory contamination

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
 Data File : R4848.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 21 Oct 2013 10:11  
 Operator : JS  
 Sample : PCB,BLKS131018-13,S,5.00g,0,20  
 Misc : NA,NA,NA,1  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 21 16:25:12 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

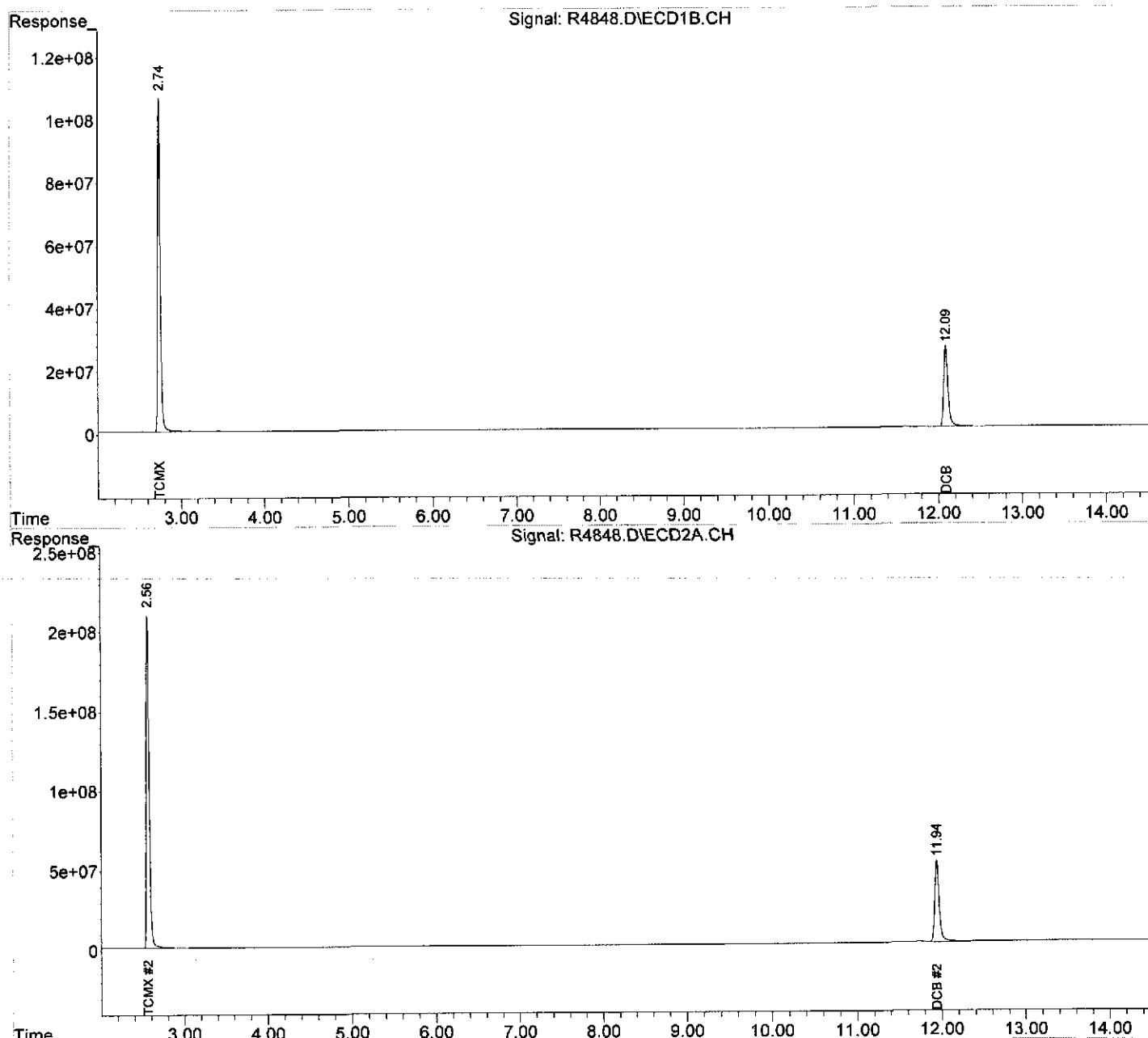
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.56	2442.5E6	5016.3E6	202.434	191.028
Spiked Amount	200.000			Recovery	= 101.22%	95.51%
2) S DCB	12.09	11.94	908.2E6	1924.7E6	230.256	232.336
Spiked Amount	200.000			Recovery	= 115.13%	116.17%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-21-13\  
Data File : R4848.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 21 Oct 2013 10:11  
Operator : JS  
Sample : PCB, BLKS131018-13, S, 5.00g, 0, 20  
Misc : NA, NA, NA, 1  
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 21 16:25:12 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: BLKA131021-17

Client ID: PCB

Date Received: NA

Date Extracted: 10/21/2013

Date Analyzed: 10/22/2013

Data file: Y2409.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : Y2409.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 21:25  
 Operator : NG  
 Sample : PCB.BLKA131021-17.A,1000ml,100.5  
 Misc : NA,NA,NA,1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 23 10:27:23 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\YPCB0925.M  
 Quant Title :  
 QLast Update : Mon Sep 30 10:08:11 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.77	2.89	3254.0E6	6959.8E6	176.250	189.516
Spiked Amount	200.000			Recovery	= 88.13%	94.76%
2) S DCB	12.04	12.48	976.4E6	2314.3E6	158.429	179.170
Spiked Amount	200.000			Recovery	= 79.21%	89.58%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

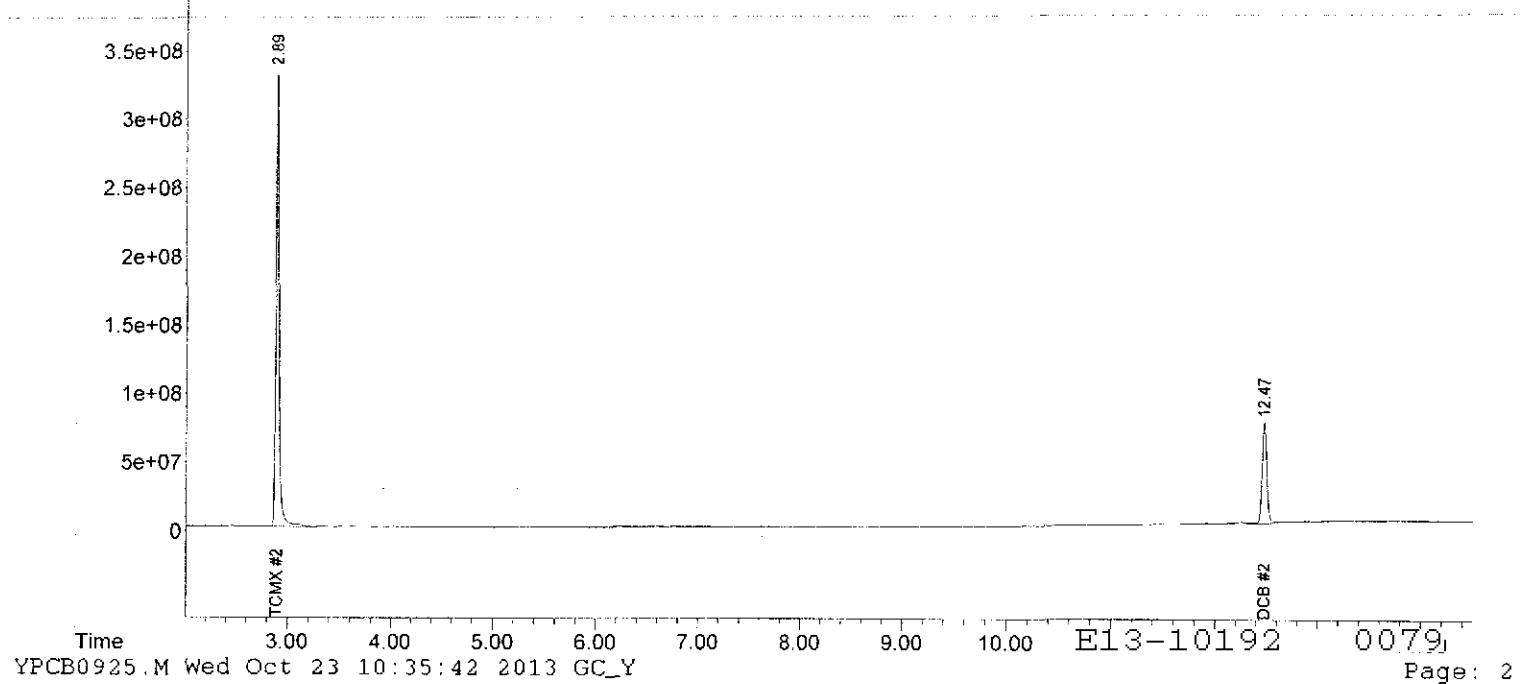
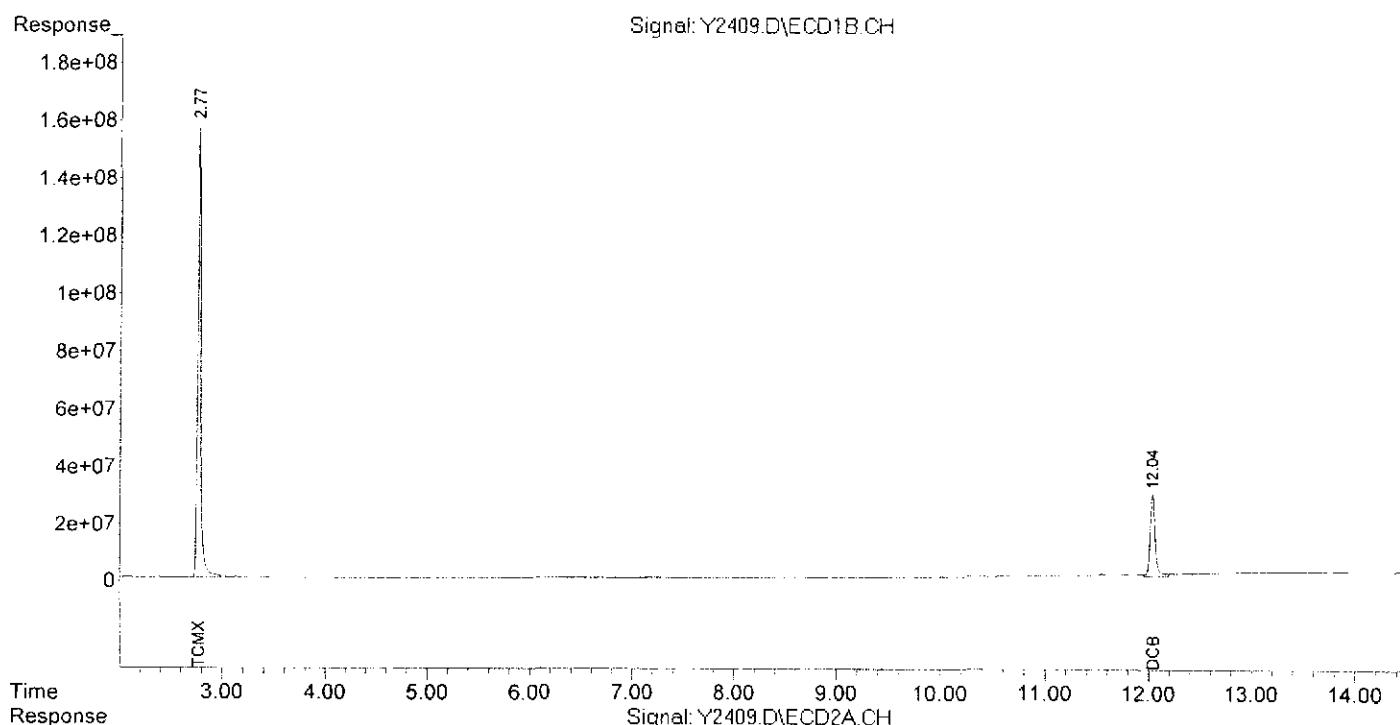
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : Y2409.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 21:25  
Operator : NG  
Sample : PCB.BLKA131021-17.A,1000ml,100.5  
Misc : NA,NA,NA,1  
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 23 10:27:23 2013  
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0925.M  
Quant Title :  
QLast Update : Mon Sep 30 10:08:11 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



## **SAMPLE TRACKING**



Integrated Analytical Labs  
273 Franklin Rd  
Randolph, NJ 07869

Contact Us: 973 361-4252  
fax: 973 989-5288  
Web: [www.ialonline.com](http://www.ialonline.com)

CUSTOMER INFO		REPORTING INFO		Turnaround Time (starts the following day if samples rec'd at lab > 5PM)													
Company: JMC Environmental Consultants, Inc.	REPORT TO:	James Clabby		*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE													
Address: 2109 Bridge Ave., Bldg. B	Address:	same															
Point Pleasant, NJ 07842																	
Telephone #: (732) 295-2144	Attn:																
Fax #: (732) 295-2150	FAX # (732) 295-2150																
Project Manager: James Clabby	INVOICE TO:	Aceto Corp.															
EMAIL Address: <a href="mailto:jclabby@jmcevironmental.com">jclabby@jmcevironmental.com</a>	Address: 4 Tri Harbor Court																
Sampler: Steve Kosch, Chris Cho	Port Washington, NY 11050																
Project Name: Arsynco	(with copy to: JMC Environmental (attn.: J. Clabby))																
Project Location (State): NJ	Attn: Ed Kelly																
Bottle Order #:	PO # 22126																
Quote #: SR041205																	
SAMPLE INFORMATION				ANALYTICAL PARAMETERS										# BOTTLES & PRESERVATIVES			
<b>Sample Matrix</b> DW - Drinking Water AQ - Aqueous WW - Waste Water OI - Oil LIQ - Liquid (Specify) OT - Other (Specify) S - Soil SL - Sludge SOL - Solid W - Wipe				TGL PCB (9982)													
Client ID	Depth (ft only)	Date	Time	Matrix	# container(s)	IAL #											
GG-42 (0-1.0)		10/14/13	11:27	S	1	1	x										
GG-42 (1.0-2.0)			11:28	S	1	2	x										
GG-42 (2.0-3.0)			11:29	S	1	3	x										
HH-43 (0-1.0)			11:37	S	1	4	x										
HH-43 (1.0-2.0)			11:38	S	1	5	x										
GG-43 (0-1.0)			12:29	S	1	6	x										
GG-43 (1.0-2.0)			12:30	S	1	7	x										
GG-43 (2.0-3.0)			12:31	S	1	8	x										
Known Hazard: Yes or No	Describe:	Conc. Expected:	Low Med High	MDL Req: GWQS (11/05) - SRS - SRS/TGW - SRS Residential - OTHER (SEE COMMENTS)													

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): <input checked="" type="checkbox"/> IAL Courier <input type="checkbox"/> Client Courier <input type="checkbox"/> FedEx/UPS			
Signature/Company: <i>Steve</i>	Date: <i>10/14/13</i>	Signature/Company: <i>Steve</i>	Date: <i>10/14/13</i>
Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>	Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>
Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>	Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>
Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>	Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>
Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>	Quarshied by: <i>Steve</i>	Received by: <i>Steve</i>

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T

Comments:

Lab Case #

*10192*

PAGE: 1 of 2



**Integrated Analytical Labs**  
**273 Franklin Rd**  
**Randolph, NJ 07869**

Contact Us: 973 361-4252  
fax: 973 989-5288  
Web: [www.ialonline.com](http://www.ialonline.com)

#### CUSTOMER INFO

## REPORTING INFO

<b>Company:</b> JMC Environmental Consultants, Inc.	<b>REPORT TO:</b>	James Clabby
<b>Address:</b> 2109 Bridge Ave., Bldg. B Point Pleasant, NJ 07842	<b>Address:</b>	same
<b>Telephone #:</b> (732) 295-2144	<b>Attn:</b>	
<b>Fax #:</b> (732) 295-2150	<b>FAX #</b>	(732) 295-2150
<b>Project Manager:</b> James Clabby	<b>INVOICE TO:</b>	Aceto Corp.
<b>EMAIL Address:</b> jclabby@jmcenvironmental.com	<b>Address:</b>	4 Tri Harbor Court
<b>Sampler:</b> Steve Kosch, Chris Cho	<b>Port</b>	Washington, NY 11050
<b>Project Name:</b> Arsynco	(with copy to: JMC Environmental (attn.: J. Clabby))	
<b>Project Location (State):</b> NJ	<b>Attn:</b>	Ed Kelly
<b>Bottle Order #:</b>	<b>PO #</b>	22126
<b>Quote # :</b> SR041205	<b>Sample Matrix</b>	

**Turnaround Time** (starts the following day if samples rec'd at lab > 5PM)

**\*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. \*\*RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE**

<b>PHC - MUST CHOOSE</b>		Rush TAT Charge **	Report Format	EDDs	
<b>NJ EPH DRO (5 day TAT)</b>	<b>NJ EPH Fractionated (5 day TAT)</b>		<b>Results Only</b>	<b>SRP format</b>	
<b>NJ EPH - C40 (5 day TAT)</b>			<b>Reduced</b>		
<b>DRO-8015 (3-day TAT)</b>	<b>QAM025 (5 day TAT)</b>		<b>Regulatory - 15% Surcharge</b>	<b>lab approved custom EDD</b>	
Verbal/Fax: Std 2 wk unless otherwise specified			<b>applies</b>	<b>NO EDD/CD REQ'D</b>	
24 hr**	48 hr**	72 hr**	96 hr**	1 wk**	5 day - 25 % 6-9 day 10%
<b>Other** (specify):</b> _____					<b>Other (describe)</b>
<b>Hard Copy: Std 3 week *</b>		<b>Other - call for price</b>			Cooler Temp <4 °C

### **SAMPLE INFORMATION**

Known Hazard: Yes or No      Describe:      Conc. Expected: Low Med High      MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

*Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.*

<input type="checkbox"/> Carrier (check one):	IAL Courier	Client Courier	FedEx/UPS
Signature/Company	Date	Time	Signature/Comments
I am squashed by: <u>STL</u>	10/14/13	1544	Received by: <u>John</u>
I am squashed by: <u>STL I/PAK</u>	10/14/13	1623	Received by: <u>John</u>
I am squashed by:			Received by: _____
I am squashed by:			Received by: _____
I am squashed by:			Received by: _____

#### **Comments:**

**Lab Case #**

PAGE: 2 of 2

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2

# PROJECT INFORMATION

## E13-10192: ARSYNCO

To: Jim Clabby  
 JMC Environmental Consultants  
 Fax: 1(732) 295-2150  
 EMail: jclabby@jmcevironmental.com; ah

Report To

JMC Environmental Consultants  
 2109 Bridge Avenue  
 Building B  
 Point Pleasant, NJ 08742  
 Attn: Jim Clabby

Bill To

JMC Environmental Consultants  
 Aceto Corp.  
 4 Tri Harbor Court  
 Port Washington, NY 11050  
 Attn: Mr. Ed Kelly

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced	22126	Oct 14, 2013 @ 16:25	NA	Oct 28, 2013	Nov 04, 2013 *

\* Any *Conditional or Hold* status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

\*\* QC Requirement (must meet): NJ SRS

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10192-001	GG-42 (0-1.0)	0/1	10/14/13@11:27	Soil	mg/Kg (ppm)	
10192-002	GG-42 (1.0-2.0)	1/2	10/14/13@11:28	Soil	mg/Kg (ppm)	
10192-003	GG-42 (2.0-3.0)	2/3	10/14/13@11:29	Soil	mg/Kg (ppm)	
10192-004	HH-43 (0-1.0)	0/1	10/14/13@11:37	Soil	mg/Kg (ppm)	
10192-005	HH-43 (1.0-2.0)	1/2	10/14/13@11:38	Soil	mg/Kg (ppm)	
10192-006	GG-43 (0-1.0)	0/1	10/14/13@12:29	Soil	mg/Kg (ppm)	
10192-007	GG-43 (1.0-2.0)	1/2	10/14/13@12:30	Soil	mg/Kg (ppm)	
10192-008	GG-43 (2.0-3.0)	2/3	10/14/13@12:31	Soil	mg/Kg (ppm)	
10192-009	GG-44 (0-1.0)	0/1	10/14/13@13:52	Soil	mg/Kg (ppm)	
10192-010	GG-44 (1.0-2.0)	1/2	10/14/13@13:53	Soil	mg/Kg (ppm)	
10192-011	FB-21	NA	10/14/13@14:43	Aqueous	mg/L (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
002	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
003	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
004	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
005	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
006	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
007	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
008	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
009	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
010	TCL PCB	Analyze	8082A	STD/2 WKS	10/28/2013
011	TCL PCB	Analyze	8082A	STD/2 WKS	10/21/2013



## INTEGRATED ANALYTICAL LABORATORIES, LLC

## SAMPLE RECEIPT VERIFICATION

CASE NO: E 13

10192

CLIENT: **JMC**COOLER TEMPERATURE: 2° - 6°C: 

( See Chain of Custody)

## Comments

COC: **COMPLETE** / INCOMPLETE  
KEY

✓	= YES/NA
✗	= NO

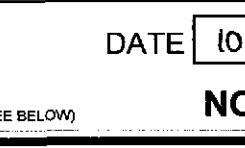
VOA received:  Encore       IGW - Methanol  
 (check one)       Terra Core       No Preservative

- ✓ Bottles Intact
- ✓ no-Missing Bottles
- ✓ no-Extra Bottles

- ✓ Sufficient Sample Volume
- ✓ no-headspace/bubbles in VOs
- ✓ Labels intact/correct
- ✓ pH Check (exclude VOs)<sup>1</sup>
- ✓ Correct bottles/preservative
- ✓ Sufficient Holding/Prep Time<sup>1</sup>
- Multiphasic Sample
- Sample to be Subcontracted
- ✓ Chain of Custody is Clear

<sup>1</sup> All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: \_\_\_\_\_

SAMPLE(S) VERIFIED BY: INITIAL DATE **10/14/13**CORRECTIVE ACTION REQUIRED: **YES** **NO** If COC is **NOT** clear, **STOP** until you get client to authorize/clarify work.

CLIENT NOTIFIED:

YES  Date/ Time: \_\_\_\_\_ NO 

PROJECT CONTACT:

\_\_\_\_\_

SUBCONTRACTED LAB:

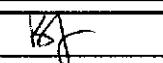
\_\_\_\_\_

DATE SHIPPED:

\_\_\_\_\_

ADDITIONAL COMMENTS: \_\_\_\_\_

VERIFIED/TAKEN BY:

INITIAL DATE **10/15/13**

E13-10192

0084

REV 05/2013

# Laboratory Custody Chronicle

IAL Case No.

E13-10192

Client JMC Environmental Consultants

Project ARSYNCO

Received On 10/14/2013@16:25

Department: GC

			<u>Prep. Date</u>	<u>Analyst</u>	<u>Analysis Date</u>	<u>Analyst</u>
TCL PCB	10192-001	Soil	10/18/13	Archimede	10/21/13	Justyna
"	-002	"	10/18/13	Archimede	10/21/13	Justyna
"	-003	"	10/18/13	Archimede	10/21/13	Justyna
"	-004	"	10/18/13	Archimede	10/21/13	Justyna
"	-005	"	10/18/13	Archimede	10/21/13	Justyna
"	-006	"	10/18/13	Archimede	10/21/13	Justyna
"	-007	"	10/18/13	Archimede	10/21/13	Justyna
"	-008	"	10/18/13	Archimede	10/21/13	Justyna
"	-009	"	10/18/13	Archimede	10/21/13	Justyna
"	-010	"	10/18/13	Archimede	10/21/13	Justyna
"	-011	Aqueous	10/21/13	Archimede	10/22/13	Justyna